

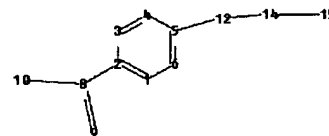
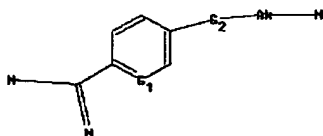
File COPY

\*\*\*\*\* Welcome to STN International \*\*\*\*\*  
 \*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 10:08:16 ON 05 FEB 2007

=> file reg

=>Uploading C:\Program Files\Stnexp\Queries\10506422ring.str



chain nodes :

8 9 10 12 14

ring nodes :

1 2 3 4 5 6 15

chain bonds :

2-8 5-12 8-9 8-10 12-14 14-15

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

1-2 1-6 2-3 2-8 3-4 4-5 5-6 5-12 8-9 8-10 12-14 14-15

isolated ring systems :

containing 1 :

G1:C,N

G2:O,S,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 9:CLASS 10:CLASS

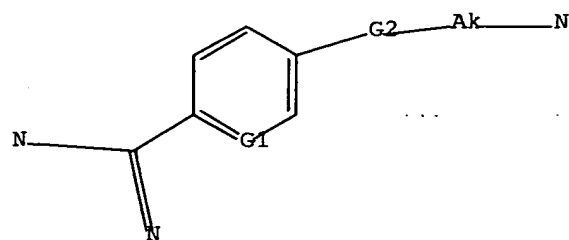
12:CLASS 14:CLASS 15:CLASS

L6 STRUCTURE UPLOADED

=> dis l6

L6 HAS NO ANSWERS

L6 STR



G1 C,N  
G2 O,S,N

Structure attributes must be viewed using STN Express query preparation.

=> s l6 sam

L7 24 SEA SSS SAM L6

=> s l6 full

L8 528 SEA SSS FUL L6

=> file caplus

=> s l8

L9 49 L8

=> s l9 and pd< mar 2003

23623764 PD< MAR 2003

(PD<20030300)

L10 34 L9 AND PD< MAR 2003

=> dis l10 1-34 fbib abs hitstr

L10 ANSWER 1 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:154251 CAPLUS Full-text

DN 138:205069

TI Preparation of 2H-phthalazin-1-ones as poly(ADP-ribose)polymerase inhibitors for treatment of cancer

IN Beaton, Graham; Moree, Wilna J.; Rueter, Jaimie K.; Dahl, Russell S.; McElligott, David L.; Goldman, Phyllis; Demaggio, Anthony J.; Christenson, Erik; Herendeen, Dan; Fowler, Kerry W.; Huang, Danwen; Bertino, Jaimie A.; Bourdon, Lisa H.; Fairfax, David J.; Jiang, Qin; Reisch, Helge A.; Song, Ren Hua; Zhichkin, Pavel E.

PA Icos Corporation, USA

SO PCT Int. Appl., 229 pp.

CODEN: PIXXD2

DT Patent

LA English

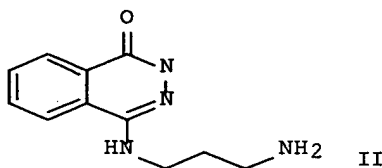
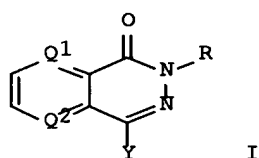
FAN.CNT 1

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	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,				
	PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,				
	UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

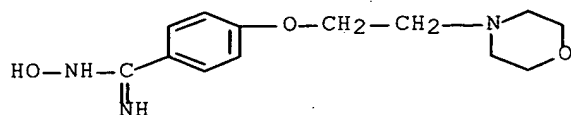
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			WO 2002-US26271	W	20020815
US 2004087588	A1	20040506	US 2002-222749		20020815
US 6924284	B2	20050802			
			US 2001-312540P	P	20010815
EP 1423120	A1	20040602	EP 2002-768596		20020815
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK					
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			WO 2002-US26271	W	20020815
CN 1568187	A	20050119	CN 2002-820219		20020815
			US 2001-312540P	P	20010815
JP 2005501848	T	20050120	JP 2003-520744		20020815
			US 2001-312540P	P	20010815
			WO 2002-US26271	W	20020815
NZ 531245	A	20050930	NZ 2002-531245		20020815
			US 2001-312540P	P	20010815
			WO 2002-US26271	A	20020815

OS MARPAT 138:205069  
GI



AB Title compds. and derivs. thereof I [wherein Q1 and Q2 = independently N or CRa; Ra = H, halo, NO<sub>2</sub>, or alkyl; R = H, alkyl, or N-protecting group; Y = NR<sub>1</sub>R<sub>2</sub>, R<sub>3</sub>C(=X<sub>1</sub>)Y<sub>1</sub>, (alkylene)<sub>x</sub>-NR<sub>1</sub>R<sub>2</sub>NR<sub>3</sub>[C(=X<sub>3</sub>)]c(NR<sub>4</sub>)d(R<sub>5</sub>)e[C(=X<sub>4</sub>)]fR<sub>16</sub>, or NR<sub>1</sub>R<sub>2</sub>N=CR<sub>2</sub>O<sub>2</sub>R<sub>2</sub>1; R<sub>1</sub>, R<sub>4</sub>, and R<sub>20</sub> = independently H or alkyl; R<sub>2</sub> = arylcarbonyl, heteroalkyl, cyclo(alkyl), alkenyl, alkynyl, etc.; R<sub>3</sub> = alkylene; X<sub>1</sub>, X<sub>3</sub>, and X<sub>4</sub> = independently O or S; Y<sub>1</sub> = NR<sub>4</sub>R<sub>5</sub>; R<sub>4</sub> = H, (hetero)alkyl, or aralkyl; R<sub>5</sub> = (un)substituted aralkyl, heteroalkyl, heterocyclyl, heteroaryl(alkyl), arylsulfonylamino, etc.; x = 0-1; R<sub>11</sub> = H, alkyl, or (un)substituted heteroaralkyl; R<sub>12</sub> = (cyclo)alkylene, heteroalkylene, aralkylene, or arylene; or NR<sub>1</sub>R<sub>2</sub> = (un)substituted heterocyclyl; c = 0-2; d-f = independently 0-1; R<sub>13</sub> = H, alkyl, arylcarbonylalkylene, etc.; R<sub>15</sub> = (hetero)alkylene or alkenylene; R<sub>16</sub> = H, (un)substituted (hetero)aryl, (hetero)alkyl, cycloalkyl, aralkoxy, amino, arylsulfonylamino, etc.; R<sub>21</sub> = alkyl, or substituted heteroaryl; and pharmaceutically acceptable salts, hydrates, solvates, or prodrugs thereof] were prepared as poly(ADP-ribose)polymerase (PARP) inhibitors (no data). For example, condensation of 1,3-propanediamine with phthalic anhydride in EtOH gave 3,4-dihydropyrimido[1,2-a]indol-10(2H)-one, which was dissolved in ethylene glycol and reacted with NH<sub>2</sub>NH<sub>2</sub>•H<sub>2</sub>O to afford II (51%). I are useful for radiosensitizing and chemosensitizing tumor cells for the treatment of cancer (no data).

IT 49773-15-1P, 4-[2-(4-Morpholinyl)ethoxy]-N-hydroxybenzamidine  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (intermediate; preparation of phthalazinone PARP inhibitors for treatment  
 of cancer)  
 RN 49773-15-1 CAPLUS  
 CN Benzenecarboximidamide, N-hydroxy-4-[2-(4-morpholinyl)ethoxy]- (9CI) (CA  
 INDEX NAME)



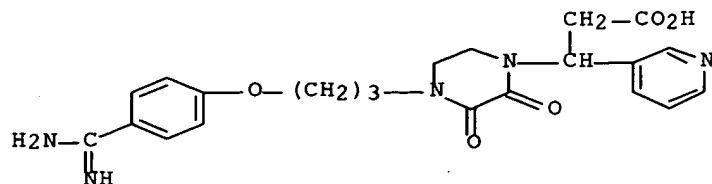
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2002:235878 CAPLUS Full-text  
 DN 136:268143  
 TI Controlled-release tablets of 2,3-diketopiperazine derivatives  
 IN Shimada, Yoko  
 PA Toyama Chemical Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

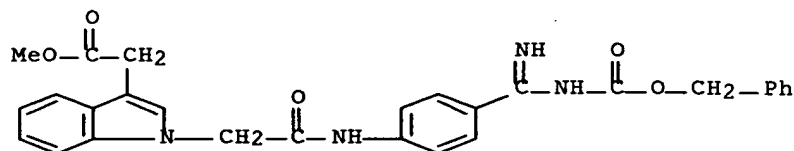
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PI	JP 2002087960	A	20020327	JP 2001-212945	20010713 <--
				JP 2000-213554	A 20000714

OS MARPAT 136:268143  
 AB The title tablets are prepd. by blending (1) 2,3-diketopiperazine derivs. as active ingredients, preferably 3-[4-[3-(4-amidinophenoxy)propyl]-2,3-dioxopiperazine-1-yl]-3-(pyridine-3-yl)propionic acid (I), (2) organic acids, (2) waxes, and (3) water-soluble polymers, tableting the mixture, and heating the tablets to a temperature higher than m.p. of the waxes. The tablets continuously release the drug, regardless of pH or movement of the digestive tract. I 90, L-tartaric acid 60, glycerin monostearate 15, and Et cellulose 135 g were mixed and melt granulated. The granules were mixed with 3g Mg stearate and compressed to give tablets (202 mg/each), which were heated at 80° for 30 min to give sustained-release tablets.

IT 225367-83-9  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (controlled-release tablets of 2,3-diketopiperazine derivs.)  
 RN 225367-83-9 CAPLUS  
 CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-dioxo-β-3-pyridinyl- (9CI) (CA INDEX NAME)

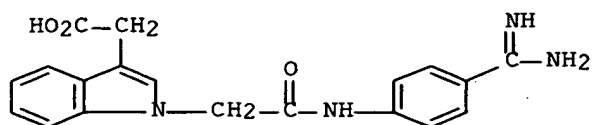


- L10 ANSWER 3 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2002:117105 CAPLUS Full-text  
 DN 137:241661  
 TI Design and synthesis of a series of indole glycoprotein IIb/IIIa inhibitors  
 AU Grumel, Valerie; Merour, Jean-Yves; Lesur, Brigitte; Giboulot, Thierry; Frydman, Armand; Guillaumet, Gerald  
 CS Institut de Chimie Organique et Analytique, UMR CNRS 6005, Universite d'Orleans, Orleans, F-45067, Fr.  
 SO European Journal of Medicinal Chemistry (2002), 37(1), 45-62  
 CODEN: EJMCA5; ISSN: 0223-5234  
 PB Editions Scientifiques et Medicales Elsevier  
 DT Journal  
 LA English  
 OS CASREACT 137:241661  
 AB Synthesis of 1,3-disubstituted indoles derivs. as potential glycoprotein (GP) IIb/IIIa antagonists was reported. Substitution of the indolic nitrogen atom by piperidino or benzamidino moieties was used as mimics of an arginine residue. The acid carboxylic group was linked to the indole scaffold in position-3 via a methylene unit. Introduction of a  $\beta$ -alanine chain was carried out on the acids (17-22) which after deprotection and basic hydrolysis afforded the final compds. The distance between the indole scaffold and the amide bond was modulated from some compound to other compds. The presence of a tosylamino group on the  $\beta$ -alanine chain on one compound slightly increased the inhibiting action on platelet aggregation initiated by collagen.  
 IT 461052-18-6P  
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (design and synthesis and structure activity relationship of a series of indole glycoprotein IIb/IIIa inhibitors)  
 RN 461052-18-6 CAPLUS  
 CN 1H-Indole-3-acetic acid, 1-[2-[[4-[imino[[ (phenylmethoxy) carbonyl] amino] methyl]phenyl]amino]-2-oxoethyl]-, methyl ester (9CI) (CA INDEX NAME)



- IT 461052-19-7P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (design and synthesis and structure activity relationship of a series of indole glycoprotein IIb/IIIa inhibitors)  
 RN 461052-19-7 CAPLUS  
 CN 1H-Indole-3-acetic acid, 1-[2-[[4-(aminomethyl)phenyl]amino]-2-

oxoethyl]-, monohydrochloride (9CI) (CA INDEX NAME)



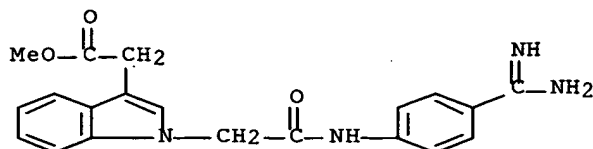
● HCl

IT 729581-67-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (design and synthesis and structure activity relationship of a series  
 of indole glycoprotein IIb/IIIa inhibitors)

RN 729581-67-3 CAPLUS

CN 1H-Indole-3-acetic acid, 1-[2-[[4-(aminoiminomethyl)phenyl]amino]-2-oxoethyl]-, methyl ester (9CI) (CA INDEX NAME)



RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:886830 CAPLUS Full-text

DN 136:20093

TI Synthesis of cyclic and bicyclic diamino histamine-3 receptor antagonists  
 IN Bennani, Youssef L.; Black, Lawrence A.; Dwight, Wesley J.; Faghieh, Ramin;  
 Gentles, Robert G.; Liu, Huaqing; Phelan, Kathleen M.; Vasudevan, Anil;  
 Zhang, Henry Q.

PA Abbott Laboratories, USA

SO U.S. Pat. Appl. Publ., 82 pp.

CODEN: USXXCO

DT Patent

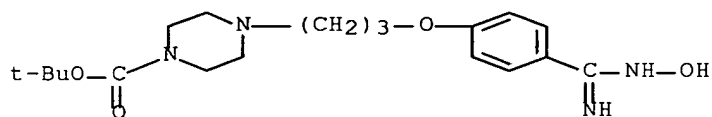
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2001049367	A1	20011206	US 2001-799450	20010305 <--
	US 6559140	B2	20030506		
				US 2000-187933P	P 20000309
OS	MARPAT 136:20093				
GI					

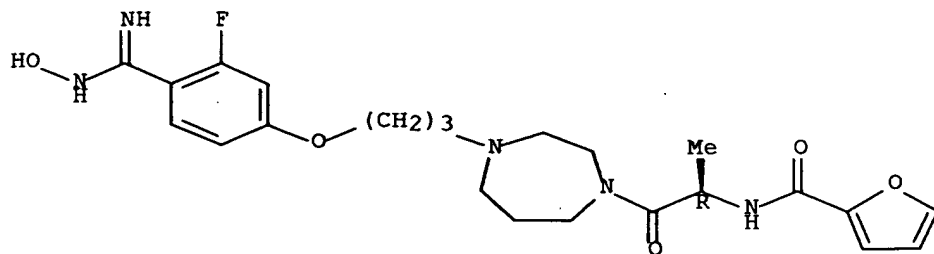
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

- AB Title compds. I - IV [G1 = R5Q1; G3 = R5Q1; L1 = absent, cycloalkyl, cycloalkylalkylene; L2 = absent, alkylene, with the proviso that at least one of L1 or L2 is not absent; n = 1 - 2; Q1 = absent, C(O), C(S), CH2, SO2, C(NR9); Q2 = O, SO0-2, acetylene; R1-3 = H, alkyl; R4 = alkoxy, alkyl, amino, aryl, aryloxy, cycloalkyl, cycloalkoxy, heteroaryl, heterocycloalkyl, etc.; R5 = H, R4; with the proviso that Q1 is not absent in compds. of formula I and when Q1 = CO in I, R4 is not alkyl; and with the proviso that when R5 = H, Q1 = absent or C(O); R6-7 H, alkyl, alkenyl, alkynyl, alkoxy, amino, azido, carboxaldehyde, carboxy, cyano, halo, hydroxy, etc.; R8 = alkyl, alkanoyl, alkoxy, alkoxycarbonyl, amino, aryl, arylalkyl, aryloyl, arylsulfonyl, carboxamido, cyano, cyanoalkyl, cycloalkyl, etc.; R9 = H, alkyl, alkoxy, aryl, etc.] were prepared. Examples include over 180 synthetic examples and HT3 receptor binding assay results for over 70 example compds. E.g., cyclopropyl[4-[3-(1-piperazinyl)propoxy]phenyl]methanone (preparation given) was coupled to Boc-L-alanine (CH2Cl2, EDCI, iPr2NEt, DMAP, room temperature, 18 h) to give the corresponding amide. This amide was deprotected (CH2Cl2, TFA, room temperature, 24 h) to give example compound V isolated as the salt of L-tartaric acid. V had  $K_i = 19.6$  nM for the H3 receptor. Compds. I - IV are useful in the treatment of diseases which are alleviated by H3 receptor activity.
- IT 360553-49-7P 360553-60-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; cyclic and bicyclic diamino histamine-3 receptor antagonists)
- RN 360553-49-7 CAPLUS
- CN 1-Piperazinecarboxylic acid, 4-[3-[4-[(hydroxyamino)iminomethyl]phenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



- RN 360553-60-2 CAPLUS
- CN 2-Furancarboxamide, N-[(1R)-2-[4-[3-[3-fluoro-4-[(hydroxyamino)iminomethyl]phenoxy]propyl]hexahydro-1H-1,4-diazepin-1-yl]-1-methyl-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- L10 ANSWER 5 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 2001:851131 CAPLUS Full-text
- DN 136:6006

TI Preparation of arylpyrazinones as coagulation cascade serine protease inhibitors

IN South, Michael S.; Parlow, John J.; Jones, Darin E.; Case, Brenda; Dice, Tom; Lindmark, Richard; Hayes, Michael J.; Rueppel, Melvin L.; Fenton, Rick; Franklin, Gary W.; Huang, Horng-Chih; Huang, Wei; Kusturin, Carrie; Long, Scott A.; Neumann, William L.; Reitz, David; Trujillo, John I.; Wang, Ching-Cheng; Wood, Rhonda; Zeng, Qingping; Mahoney, Matthew W.

PA Pharmacia Corporation, USA

SO PCT Int. Appl., 578 pp.  
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

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PI	WO 2001087854	A1	20011122	WO 2000-US31884	20001120 <--
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	US 6664255	B1	20031216	US 2000-574752	20000518
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	EP 1292579	A1	20030319	EP 2000-980582	20001120
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				US 2000-574752	A 20000518
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	US 2004006230	A1	20040108	US 2002-195573	20020715
	US 6908919	B2	20050621		
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				US 2000-574752	A2 20000518
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				WO 2000-US31884	W 20001120
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	US 2005043313	A1	20050224	US 2004-940693	20040914
				US 1999-134958P	P 19990519
				US 2000-574752	A2 20000518
				US 2000-716961	A3 20001120
				US 2002-195573	A1 20020715

## PATENT FAMILY INFORMATION:

FAN 2000:824233

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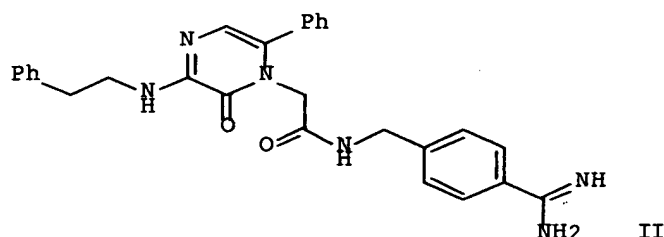
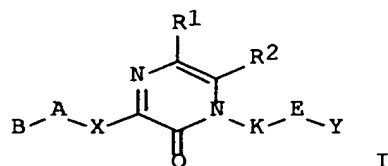


ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,  
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			WO 2000-US8225	W	20000518
JP 2002544264	T	20021224	JP 2000-618251		20000518
			US 1999-134958P	P	19990519
			WO 2000-US8225	W	20000518
HU 200202191	A2	20021228	HU 2002-2191		20000518
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			WO 2000-US8225	W	20000518
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NZ 514876	A	20050324	NZ 2000-514876		20000518
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			WO 2000-US8225	W	20000518
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R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,		IE, SI, LT, LV, FI, RO, MK, CY, AL		
			US 1999-134958P	P	19990519
			EP 2000-931916	A3	20000518
ZA 2001009341	A	20040315	ZA 2001-9341		20011113
			US 1999-134958P	P	19990519
NO 2001005605	A	20020118	NO 2001-5605		20011116
			US 1999-134958P	P	19990519
			WO 2000-US8225	W	20000518
US 2004006230	A1	20040108	US 2002-195573		20020715
US 6908919	B2	20050621			
			US 1999-134958P	P	19990519
			US 2000-574752	A2	20000518
			US 2000-716961	A3	20001120
US 2004102448	A1	20040527	US 2003-691958		20031023
			US 1999-134958P	P	19990519
			US 2000-574752	A1	20000518
ZA 2004000455	A	20040719	ZA 2004-455		20040121
			US 1999-134958P	P	19990519
US 2005043313	A1	20050224	US 2004-940693		20040914
			US 1999-134958P	P	19990519
			US 2000-574752	A2	20000518

OS MARPAT 136:6006

GI



AB The title compds. [I; B = (un)substituted Ph, 5-6 membered heteroaryl, etc.; A = a bond, CH<sub>2</sub>, etc.; X = NH, NOH; R<sub>1</sub> = H, alkyl, CN, etc.; R<sub>2</sub> = (un)substituted Ph, CH<sub>2</sub>Ph, etc.; K = CH<sub>2</sub>, (CH<sub>2</sub>)<sub>2</sub>, etc.; E = a bond, CO, CONH, etc.; Y = 4-amidinobenzyl, benzimidazol-5-ylmethyl, etc.], useful for the treatment and prevention of a variety of thrombotic conditions including coronary artery and cerebrovascular diseases, were prepared. E.g., a multi-step synthesis of II.3HCl, starting from H<sub>2</sub>NCH<sub>2</sub>CO<sub>2</sub>CH<sub>2</sub>Ph, was described. Data for inhibitory activity of title compds. I toward TF-VIIa, thrombin II, factor Xa, and trypsin II, were given.

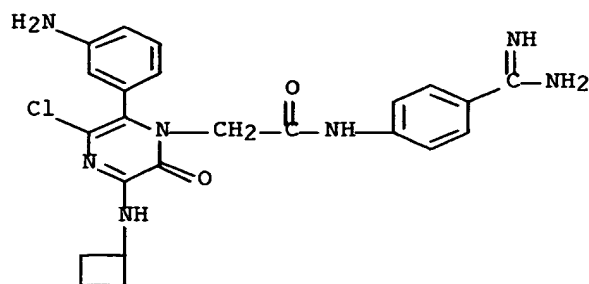
IT 374670-65-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of substituted polycyclic aryl and heteroaryl pyrazinones for selective inhibition of the coagulation cascade)

RN 374670-65-2 CAPLUS

CN 1(2H)-Pyrazineacetamide, N-[4-(aminoiminomethyl)phenyl]-6-(3-aminophenyl)-5-chloro-3-(cyclobutylamino)-2-oxo- (9CI) (CA INDEX NAME)

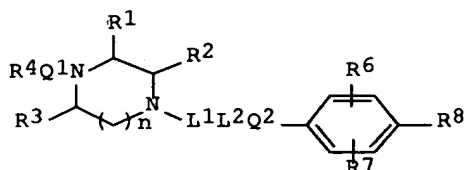


RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2001:676758 CAPLUS Full-text  
DN 135:242249  
TI Preparation of piperazines, homopiperazines, and related compounds as  
histamine H3 receptor antagonists.  
IN Bennani, Youssef L.; Black, Lawrence A.; Dwight, Wesley J.; Faghih, Ramin;  
Gentles, Robert G.; Liu, Huaqing; Phelan, Kathleen M.; Vasudevan, Anil;  
Zhang, Henry Q.  
PA Abbott Laboratories, USA  
SO PCT Int. Appl., 211 pp.  
CODEN: PIXXD2  
DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001066534	A2	20010913	WO 2001-US6885	20010305 <--
	WO 2001066534	A3	20031016		
	W: CA, JP, MX				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
			US 2000-521973	A	20000309
OS	MARPAT 135:242249				
GI					



AB Title compds. [I; L1 = null, (substituted) cycloalkyl, cycloalkylalkylene; L2 = null, alkylene, arylalkylene; ≥1 of L1, L2 is present; Q1 = CO, CS, CH2, SO2, etc.; Q2 = O, S, SO, SO2, C.tplbond.C; R1-R3 = H, alkyl; R4 = alkoxy, alkyl, amino, (substituted) aryl, aryloxy, cycloalkyl, cycloalkoxy, etc.; R6, R7 = H, alkyl, alkenyl, alkynyl, alkoxy, amino, N3, CHO, etc.; adjoining R6R7 = OCH2CO; R8 = alkyl, alkanoyl, alkoxy, alkoxy carbonyl, amino, (substituted) aryl, aralkyl, aroyl, etc.; n = 1, 2], were prepared Thus, tert-Bu (1S)-2-[4-[3-[4-(cyclopropylcarbonyl)phenoxy]propyl]-1-piperazinyl]-1-methyl-2-oxoethylcarbamate (preparation given) in CH2Cl2 was stirred with CF3CO2H at 0° to room temperature to give 83% to give [4-[3-[4-[(2S)-2-aminopropanoyl]-1-piperazinyl]propoxy]phenyl](cyclopropyl)methanone. This showed IC50 = 19.6 nM in a histamine H3 receptor binding assay.

IT 360554-00-3

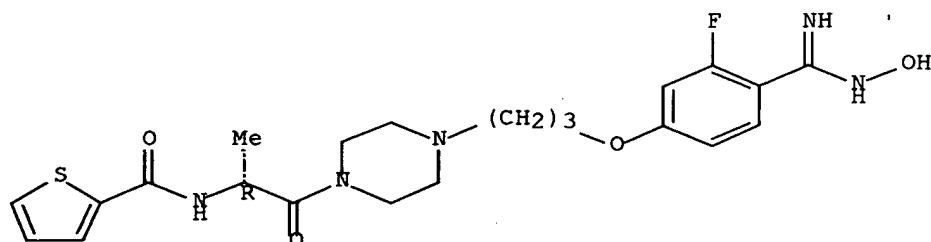
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of piperazines, homopiperazines, and related compds. as  
histamine H3 receptor antagonists)

RN 360554-00-3 CAPLUS

CN 2-Thiophenecarboxamide, N-[(1R)-2-[4-[3-[3-fluoro-4-  
[(hydroxyamino)iminomethyl]phenoxy]propyl]-1-piperazinyl]-1-methyl-2-

oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



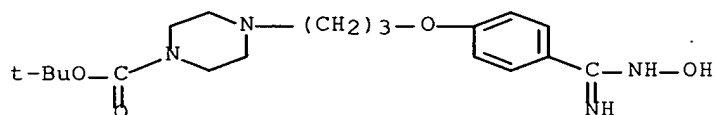
IT 360553-49-7P 360553-50-0P 360553-60-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of piperazines, homopiperazines, and related compds. as histamine H3 receptor antagonists)

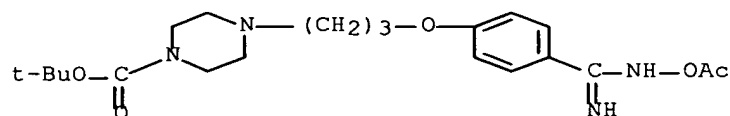
RN 360553-49-7 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[3-[4-[(hydroxyamino)iminomethyl]phenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 360553-50-0 CAPLUS

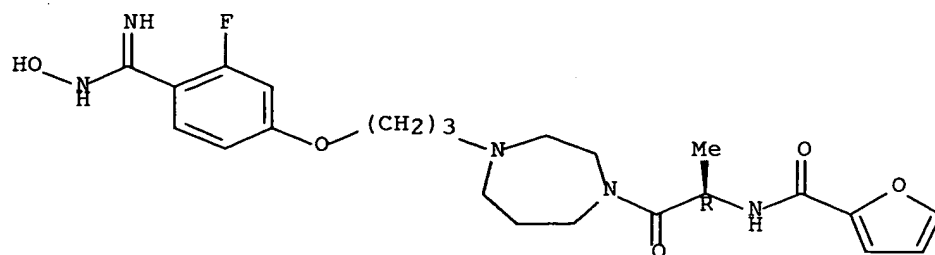
CN 1-Piperazinecarboxylic acid, 4-[3-[4-[(acetyloxy)amino]iminomethyl]phenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 360553-60-2 CAPLUS

CN 2-Furancarboxamide, N-[(1R)-2-[4-[3-[3-fluoro-4-[(hydroxyamino)iminomethyl]phenoxy]propyl]hexahydro-1H-1,4-diazepin-1-yl]-1-methyl-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 7 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2001:545679 CAPLUS Full-text  
 DN 135:137523  
 TI Preparation of piperazinylpropionylaminophenylamidines as inhibitors of cell aggregation and cell-matrix interaction.  
 IN Himmelsbach, Frank; Guth, Brian  
 PA Boehringer Ingelheim Pharma K.-G., Germany  
 SO PCT Int. Appl., 28 pp.  
 CODEN: PIXXD2

DT Patent

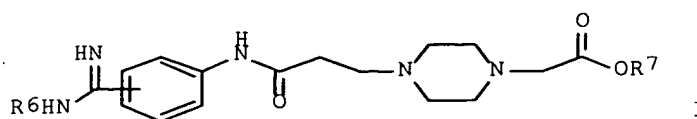
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 2001053280	A1	20010726	WO 2001-EP372	20010113 <--	
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	RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
				DE 2000-10002510	A 20000121	
	DE 10002510	A1	20010726	DE 2000-10002510	20000121 <--	
	CA 2397533	A1	20010726	CA 2001-2397533	20010113 <--	
				DE 2000-10002510	A 20000121	
				WO 2001-EP372	W 20010113	
	EP 1255744	A1	20021113	EP 2001-903646	20010113 <--	
	R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR		
				DE 2000-10002510	A 20000121	
				WO 2001-EP372	W 20010113	
	JP 2003520791	T	20030708	JP 2001-553755	20010113	
				DE 2000-10002510	A 20000121	
				WO 2001-EP372	W 20010113	
	US 2003096824	A1	20030522	US 2002-181576	20021021	
	US 6838460	B2	20050104			
				DE 2000-10002510	A 20000121	
				WO 2001-EP372	W 20010113	

OS MARPAT 135:137523

GI



AB Title compds. (I; R6 = OH, alkoxy carbonyl, aryl carbonyl, aralkoxy carbonyl; R7 = H, alkyl, cycloalkyl, phenylalkyl, etc.), were prepared. Thus, 4-[2-[(4-amidinophenyl)aminocarbonyl]ethyl]-1-(ethoxycarbonyl)methylpiperazine triacetate (preparation given) in acetone/H<sub>2</sub>O at 0° was treated with K<sub>2</sub>CO<sub>3</sub> and octyl chloroformate followed by stirring overnight at room temperature to give 45% 4-[2-[(4-octyloxy carbonylamidinophenyl)aminocarbonyl]ethyl]-1-(ethoxycarbonyl)methylpiperazine. The corresponding hexyloxy compound at 1 mg/kg orally in monkeys gave after 4 h a plasma concentration of 4-[2-[(4-amidinophenyl)aminocarbonyl]ethyl]-1-carboxymethylpiperazine of 316 nM.

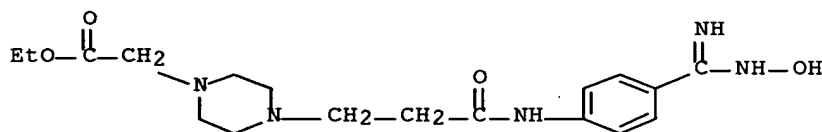
IT 351417-11-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of piperazinylpropionylaminophenylamidines as inhibitors of cell aggregation and cell-matrix interaction)

RN 351417-11-3 CAPLUS

CN 1-Piperazineacetic acid, 4-[3-[[4-[(hydroxyamino)iminomethyl]phenyl]amino]-3-oxopropyl]-, ethyl ester (9CI) (CA INDEX NAME)



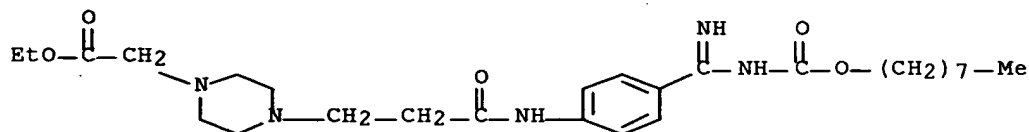
IT 351417-07-7P 351417-08-8P 351417-09-9P  
351417-10-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperazinylpropionylaminophenylamidines as inhibitors of cell aggregation and cell-matrix interaction)

RN 351417-07-7 CAPLUS

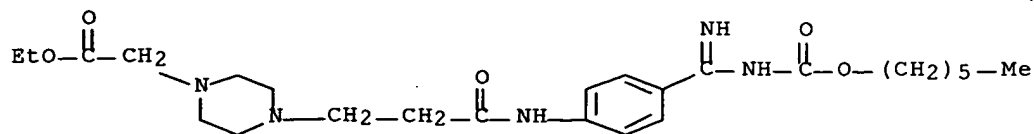
CN 1-Piperazineacetic acid, 4-[3-[[4-[imino[(octyloxy)carbonyl]amino]methyl]phenyl]amino]-3-oxopropyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 351417-08-8 CAPLUS

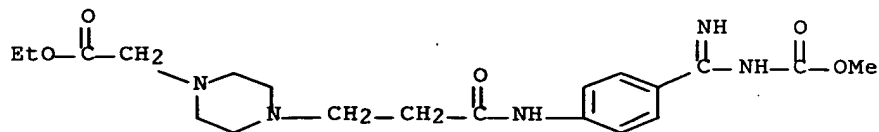
CN 1-Piperazineacetic acid, 4-[3-[[4-[[(hexyloxy)carbonyl]amino]iminomethyl]phenyl]amino]-3-oxopropyl]-, ethyl ester (9CI) (CA INDEX NAME)

phenyl]amino]-3-oxopropyl]-, ethyl ester (9CI) (CA INDEX NAME)



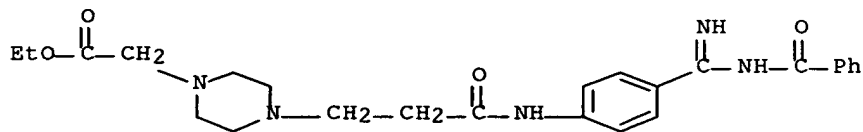
RN 351417-09-9 CAPLUS

CN 1-Piperazineacetic acid, 4-[3-[[4-[[imino(methoxycarbonyl)amino]methyl]phenyl]amino]-3-oxopropyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 351417-10-2 CAPLUS

CN 1-Piperazineacetic acid, 4-[3-[[4-[(benzoylamino)iminomethyl]phenyl]amino]-3-oxopropyl]-, ethyl ester (9CI) (CA INDEX NAME)



IT 351417-14-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of piperazinylpropionylaminophenylamidines as inhibitors of cell aggregation and cell-matrix interaction)

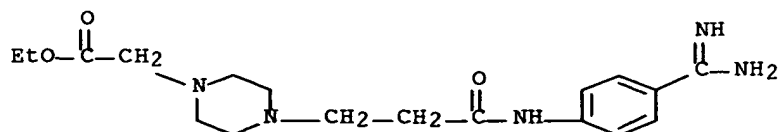
RN 351417-14-6 CAPLUS

CN 1-Piperazineacetic acid, 4-[3-[[4-(aminoiminomethyl)phenyl]amino]-3-oxopropyl]-, ethyl ester, triacetate (9CI) (CA INDEX NAME)

CM 1

CRN 351417-13-5

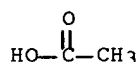
CMF C18 H27 N5 O3



CM 2

CRN 64-19-7

CMF C2 H4 O2



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 8 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:526050 CAPLUS Full-text

DN 135:107149

TI Synthesis, antibacterial activity and RNA polymerase inhibition of phenylamidine derivs.

IN Li, Leping; Chen, Xiaoqui; Fan, Pingchen; Mihalic, Jeffrey Thomas; Cutler, Serena

PA Tularik Inc., USA

SO PCT Int. Appl., 104 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001051456	A2	20010719	WO 2001-US1219	20010112 <--
	WO 2001051456	A3	20011220		
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	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
				US 2000-175892P	P 20000113
CA	2397575	A1	20010719	CA 2001-2397575	20010112 <--
				US 2000-175892P	P 20000113
				WO 2001-US1219	W 20010112
US	2002045749	A1	20020418	US 2001-759633	20010112 <--
US	6780858	B2	20040824		
				US 2000-175892P	P 20000113
EP	1246795	A2	20021009	EP 2001-914329	20010112 <--
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
				US 2000-175892P	P 20000113
				WO 2001-US1219	W 20010112
JP	2003519676	T	20030624	JP 2001-551838	20010112
				US 2000-175892P	P 20000113
				WO 2001-US1219	W 20010112
US	2004235911	A1	20041125	US 2004-877408	20040625
US	7053234	B2	20060530		

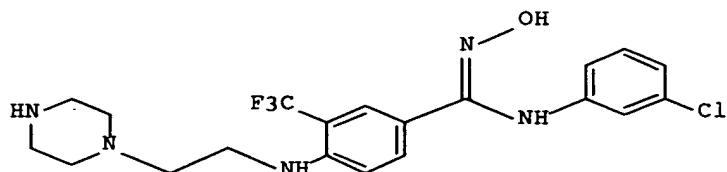


US 2006270651	A1	20061130	US 2000-175892P	P	20000113
US 7148259	B1	20061212	US 2001-759633	A1	20010112
			US 2006-344111		20060201

US 2000-175892P	P	20000113
US 2001-759633	A1	20010112
US 2004-877408	A3	20040625

OS MARPAT 135:107149

GI



I

AB Synthesis of hydroxyamidines, e.g. (I) and related compds. are disclosed which are suitable as antibacterial agents by their inhibition of RNA polymerase. Antibacterial activity against *S. aureus* and *E. coli* are given.

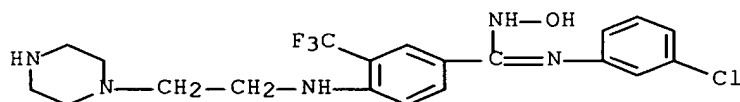
IT 350487-97-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis, antibacterial activity and RNA polymerase inhibition of phenyl- and heterocyclylhydroxyamidine derivs.)

RN 350487-97-7 CAPLUS

CN Benzenecarboximidamide, N-(3-chlorophenyl)-N'-hydroxy-4-[[2-(1-piperazinyl)ethyl]amino]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L10 ANSWER 9 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:460399 CAPLUS Full-text

DN 131:87814

TI Indole derivatives as inhibitors of factor Xa, and their preparation and use as anticoagulants

IN Defossa, Elisabeth; Heinelt, Uwe; Klingler, Otmar; Zoller, Gerhard; Al-Obeidi, Fahad; Walser, Armin; Wildgoose, Peter; Matter, Hans

PA Hoechst Marion Roussel Deutschland GmbH, Germany

SO PCT Int. Appl., 199 pp.

CODEN: PIXXD2

DT Patent

LA English

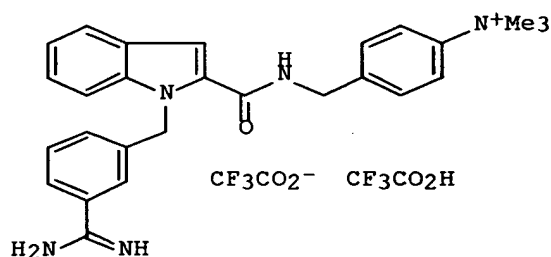
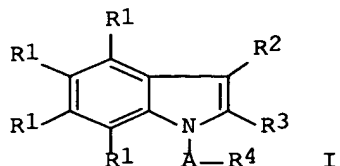
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9933800	A1	19990708	WO 1998-EP8030	19981210 <--

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,  
 DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,  
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,  
 MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,  
 TR, TT, UA, UG, US, UZ, VN, YU, ZW  
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,  
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,  
 CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

			EP 1997-122901	A	19971224	
CA 2316172	A1	19990708	CA 1998-2316172		19981210	<--
			EP 1997-122901	A	19971224	
			WO 1998-EP8030	W	19981210	
AU 9920528	A	19990719	AU 1999-20528		19981210	<--
AU 743881	B2	20020207				
			EP 1997-122901	A	19971224	
			WO 1998-EP8030	W	19981210	
BR 9814340	A	20001003	BR 1998-14340		19981210	<--
			EP 1997-122901	A	19971224	
			WO 1998-EP8030	W	19981210	
EP 1042287	A1	20001011	EP 1998-965244		19981210	<--
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			EP 1997-122901	A	19971224	
			WO 1998-EP8030	W	19981210	
TR 200001954	T2	20001221	TR 2000-200001954		19981210	<--
			EP 1997-122901	A	19971224	
HU 200100723	A2	20010828	HU 2001-723		19981210	<--
			EP 1997-122901	A	19971224	
			WO 1998-EP8030	W	19981210	
JP 2001527066	T	20011225	JP 2000-526484		19981210	<--
			EP 1997-122901	A	19971224	
			WO 1998-EP8030	W	19981210	
NZ 505370	A	20020628	NZ 1998-505370		19981210	<--
			EP 1997-122901	A	19971224	
			WO 1998-EP8030	W	19981210	
RU 2225397	C2	20040310	RU 2000-119774		19981210	
			EP 1997-122901	A	19971224	
			WO 1998-EP8030	W	19981210	
AT 293599	T	20050515	AT 1998-965244		19981210	
			EP 1997-122901	A	19971224	
			WO 1998-EP8030	W	19981210	
ES 2241194	T3	20051016	ES 1998-965244		19981210	
			EP 1997-122901	A	19971224	
ZA 9811759	A	19990728	ZA 1998-11759		19981222	<--
			EP 1997-122901	A	19971224	
TW 241294	B	20051011	TW 1998-87121374		19990223	
			EP 1997-122901	A	19971224	
NO 2000003057	A	20000818	NO 2000-3057		20000614	<--
NO 316912	B1	20040621				
			EP 1997-122901	A	19971224	
			WO 1998-EP8030	W	19981210	
US 6337344	B1	20020108	US 2000-582344		20000814	<--
			EP 1997-122901	A	19971224	
			WO 1998-EP8030	W	19981210	
HK 1033795	A1	20060113	HK 2001-104324		20010621	
			EP 1997-122901	A	19971224	
			WO 1998-EP8030	W	19981210	

OS MARPAT 131:87814  
 GI



AB The invention relates to the inhibition of blood clotting proteins, and more particularly, to indole derivs. or their physiol. acceptable salts which effect this, having formula I [R1 groups = H, halo, alkyl, CF3, (un)substituted Ph or phenylalkoxy, etc., with  $\geq 2$  of R1 being H;  $\geq 1$  of R2 and R3 = (CH<sub>2</sub>)<sub>0-2</sub>CO<sub>2</sub>H or derivs., other = H, F, Cl, Br, or alkyl; or R<sub>2</sub>R<sub>3</sub> = CH<sub>2</sub>CH<sub>2</sub>N(COPh)CH<sub>2</sub> or analogs; A = bond, alk(en/yn)ylene, CO, SO, SO<sub>2</sub>, etc.; R<sub>4</sub> = (un)substituted Ph, pyridyl, or other heterocyclyl]. I are inhibitors of the blood clotting enzyme factor Xa. The invention also relates to processes for the preparation of I, to methods of inhibiting factor Xa activity and blood clotting, to use of I in the treatment and prophylaxis of associated (e.g., thromboembolic) diseases, and to the use of I in the preparation of related medicaments. The invention further relates to compns. containing I, in particular pharmaceutical compns. containing a compound I and pharmaceutically acceptable carriers and/or auxiliary substances. Over 160 compds. I were prepared. For instance, 1H-indole-2-carboxylic acid Et ester underwent a 5-step sequence to give title salt II. This preparation involved (1) N-alkylation with 3-cyanobenzyl bromide, (2) alkaline hydrolysis of the ester, (3) amidation with 4-(Me<sub>2</sub>N)C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>NH<sub>2</sub>·2HCl, (4) conversion of the nitrile to a thioamide, and (5) quaternization at dimethylamino, and ammonolysis of the thioamide to an amidine. In an assay using human factor Xa in vitro, II had a K<sub>i</sub> value of 0.090  $\mu$ M.

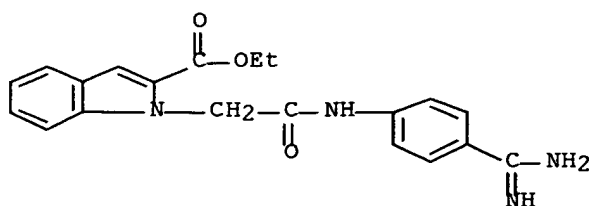
IT 229951-81-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compound; preparation of indole derivs. as inhibitors of factor Xa)

RN 229951-81-9 CAPLUS

CN 1H-Indole-2-carboxylic acid, 1-[2-[[4-(aminoiminomethyl)phenyl]amino]-2-oxoethyl]-, ethyl ester, monohydriodide (9CI) (CA INDEX NAME)



● HI

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 10 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1999:394051 CAPLUS Full-text  
DN 131:44847  
TI Preparation of heterocyclylbenzamidines as blood-coagulation factor Xa inhibitors  
IN Dorsch, Dieter; Juraszyk, Horst; Wurziger, Hanns; Gante, Joachim; Mederski, Werner; Buchstaller, Hans-Peter; Anzali, Soheila; Bernotat-Danielowski, Sabine; Melzer, Guido  
PA Merck Patent G.m.b.H., Germany  
SO Ger. Offen., 36 pp.  
CODEN: GWXXBX

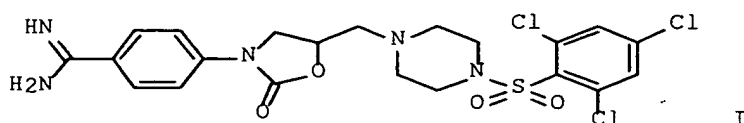
DT Patent  
LA German

FAN.CNT 1

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				DE 1997-19755268	A 19971212
				WO 1998-EP7673	W 19981127
WO	9931092	A1	19990624	WO 1998-EP7673	19981127 <--
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OS MARPAT 131:44847  
GI



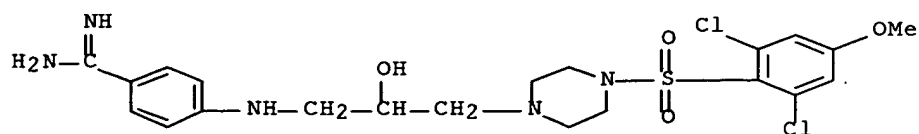
AB R1Z1Z2CH2CH(OR3)CH2Z3Z4R4 [R1 = (acyl- or hydroxy-substituted) C(:NH)NH2, 5-methyl-1,2,4-oxadiazol-3-yl, etc.; R3 = H, alkyl, CH2Ph, etc.; R4 = (cyclo)alkyl, phenyl(alkyl), heterocyclyl(alkyl), etc.; Z1 = (un)substituted phenylene; Z2 = O or NR5; R5 = H, alkyl, CH2Ph; R3R5 = CO; Z3 = O, NR5, piperazine-1,4-diyl, etc.; Z4 = bond, CO, SO2, CO2, CONR5] were prepared as blood-coagulation factor Xa inhibitors (no data). Thus, 3-[4-(5-methyl-1,2,4-oxadiazol-3-yl)phenyl]-2-oxooxazolidine-5-ylmethyl methanesulfonate (preparation described) was aminated by Boc-piperazine and the deprotected product amidated by 2,4,6-trichlorobenzenesulfonyl chloride to give, after hydrogenation, title compound I.HOAc.

IT 227325-04-4P 227325-05-5P 227325-07-7P  
227325-08-8P 227325-09-9P 227325-11-3P  
227325-13-5P 227325-15-7P 227325-17-9P  
227325-19-1P 227325-21-5P 227325-23-7P  
227325-25-9P 227325-27-1P 227325-29-3P  
227325-31-7P 227325-33-9P 227326-61-6P  
227326-63-8P 227326-65-0P 227326-79-6P  
227326-81-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of heterocyclylbenzamidines as blood-coagulation factor Xa inhibitors)

RN 227325-04-4 CAPLUS

CN Benzenecarboximidamide, 4-[[[3-[4-[(2,6-dichloro-4-methoxyphenyl)sulfonyl]-1-piperazinyl]-2-hydroxypropyl]amino]- (9CI) (CA INDEX NAME)



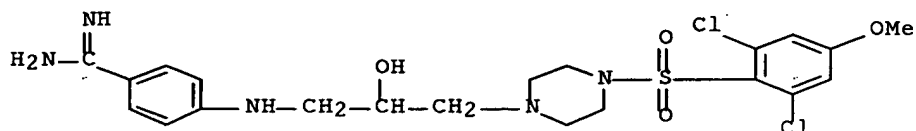
RN 227325-05-5 CAPLUS

CN Benzenecarboximidamide, 4-[[[3-[4-[(2,6-dichloro-4-methoxyphenyl)sulfonyl]-1-piperazinyl]-2-hydroxypropyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

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CRN 227325-04-4

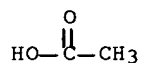
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CM 2

CRN 64-19-7

CMF C2 H4 O2



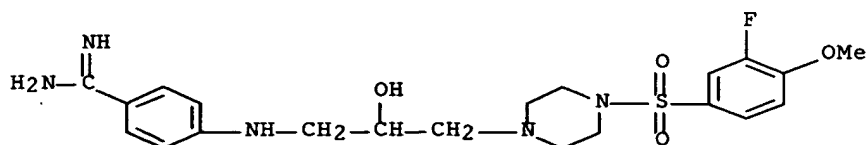
RN 227325-07-7 CAPLUS

CN Benzenecarboximidamide, 4-[[[3-[4-[(3-fluoro-4-methoxyphenyl)sulfonyl]-1-piperazinyl]-2-hydroxypropyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

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CRN 227325-06-6

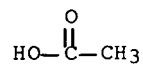
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CM 2

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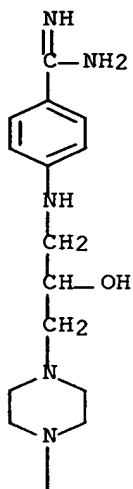
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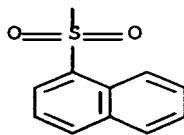
RN 227325-08-8 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-(1-naphthalenylsulfonyl)-1-piperazinyl]propyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



RN 227325-09-9 CAPLUS

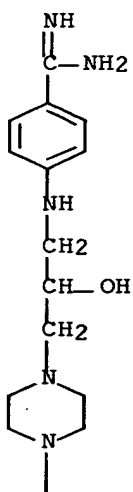
CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-(1-naphthalenylsulfonyl)-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

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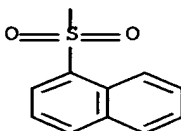
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CMF C24 H29 N5 O3 S

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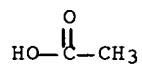


PAGE 2-A



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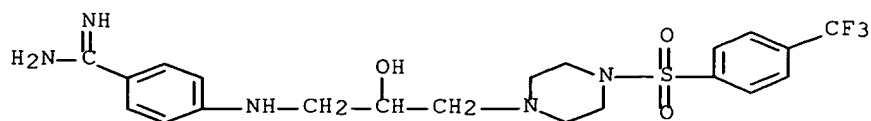


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CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[[4-[[4-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

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CRN 227325-10-2  
CMF C21 H26 F3 N5 O3 S

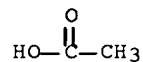




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CRN 64-19-7

CMF C2 H4 O2



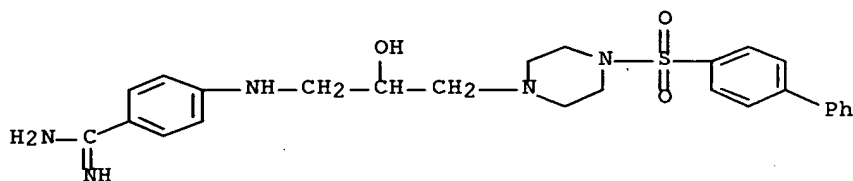
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CN Benzenecarboximidamide, 4-[[3-[4-([1,1'-biphenyl]-4-ylsulfonyl)-1-piperazinyl]-2-hydroxypropyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

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CRN 227325-12-4

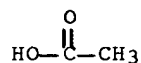
CMF C26 H31 N5 O3 S



CM 2

CRN 64-19-7

CMF C2 H4 O2



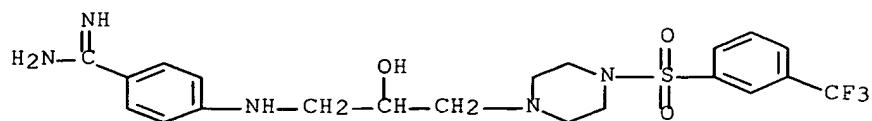
RN 227325-15-7 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[[3-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

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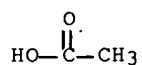
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CM 2

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CMF C2 H4 O2



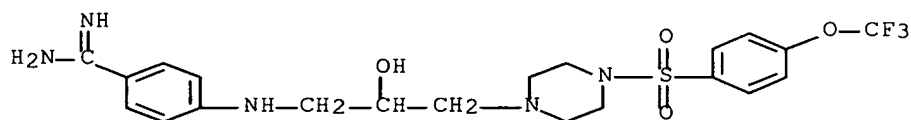
RN 227325-17-9 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[[4-(trifluoromethoxy)phenyl]sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

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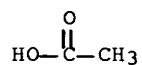
CMF C21 H26 F3 N5 O4 S



CM 2

CRN 64-19-7

CMF C2 H4 O2

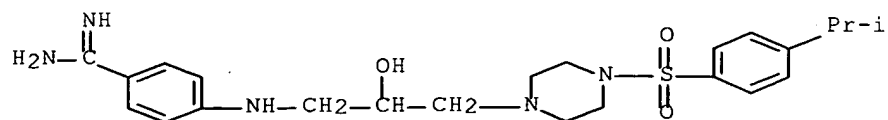


RN 227325-19-1 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[[4-(1-methylethyl)phenyl]sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

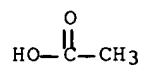
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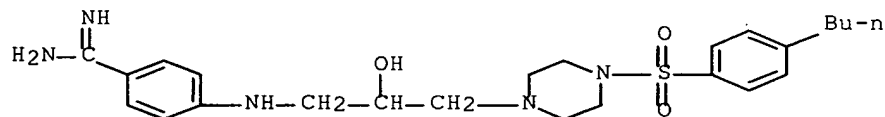
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CMF C2 H4 O2



RN 227325-21-5 CAPLUS  
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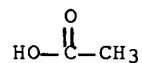
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CM 2

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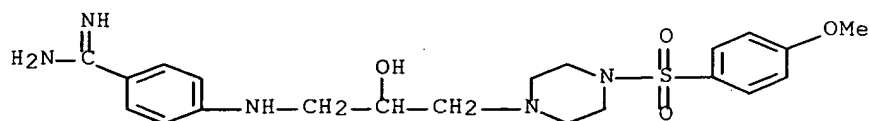


RN 227325-23-7 CAPLUS  
CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[[4-[(4-methoxyphenyl)sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

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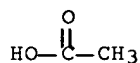
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CM 2

CRN 64-19-7

CMF C2 H4 O2



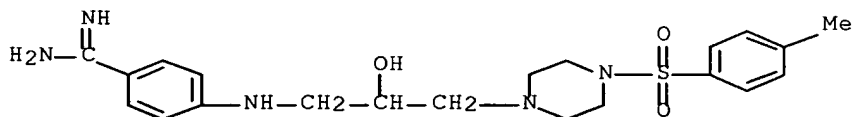
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CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[(4-methylphenyl)sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

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CRN 227325-24-8

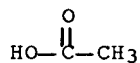
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CM 2

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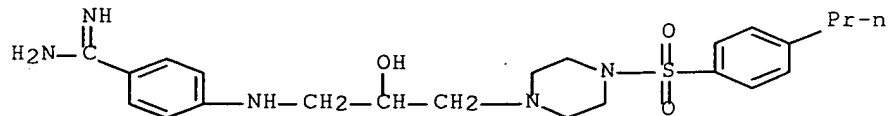
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CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[(4-propylphenyl)sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

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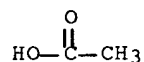
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CM 2

CRN 64-19-7

CMF C2 H4 O2



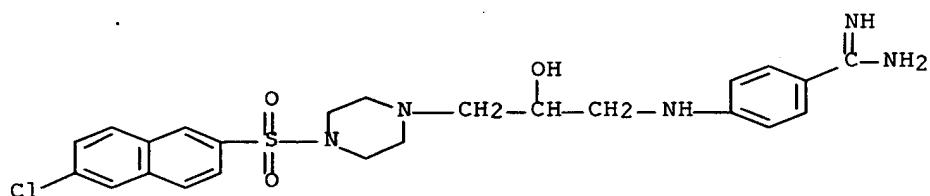
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CN Benzenecarboximidamide, 4-[[3-[4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl]-2-hydroxypropyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

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CRN 227325-28-2

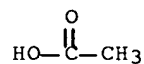
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CM 2

CRN 64-19-7

CMF C2 H4 O2

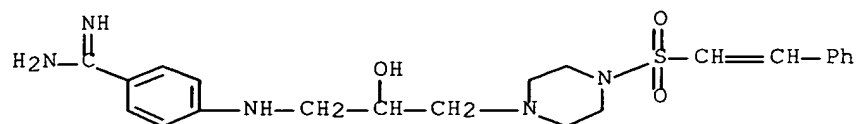


RN 227325-31-7 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[(2-phenylethenyl)sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

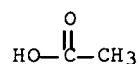
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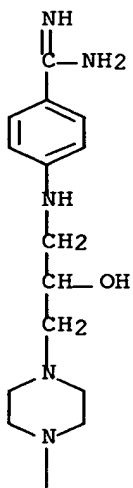


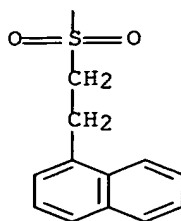
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CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[[4-[[2-(1-naphthalenyl)ethyl]sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

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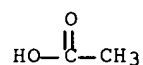




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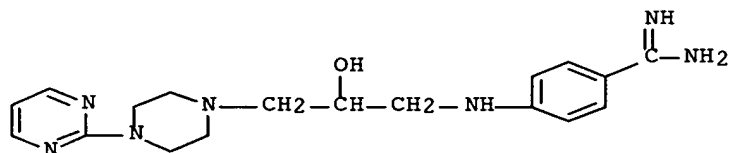
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CRN 227326-60-5

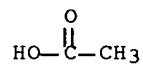
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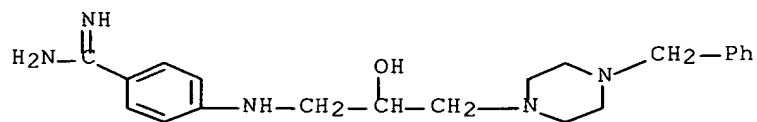


RN 227326-63-8 CAPLUS

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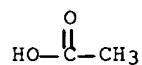
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CMF C21 H29 N5 O



CM 2

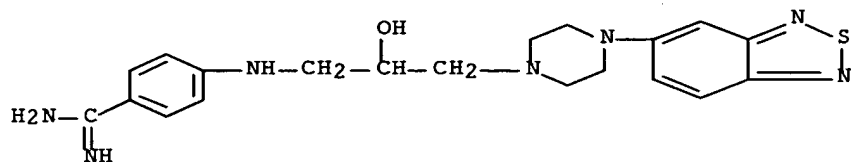
CRN 64-19-7  
CMF C2 H4 O2



RN 227326-65-0 CAPLUS  
CN Benzenecarboximidamide, 4-[[3-[4-(2,1,3-benzothiadiazol-5-yl)-1-piperazinyl]-2-hydroxypropyl]amino]-, mono(trifluoroacetate) (salt) (9CI)  
(CA INDEX NAME)

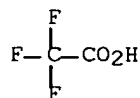
CM 1

CRN 227326-64-9  
CMF C20 H25 N7 O S



CM 2

CRN 76-05-1  
CMF C2 H F3 O2



RN 227326-79-6 CAPLUS  
CN 1-Piperazinecarboxamide, 4-[3-[[4-(aminoiminomethyl)phenyl]amino]-2-

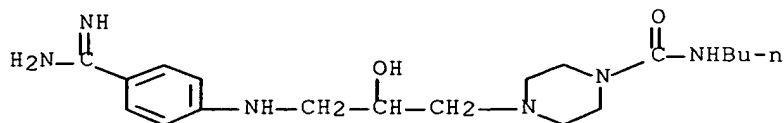


hydroxypropyl]-N-butyl-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227326-78-5

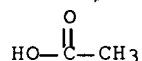
CMF C19 H32 N6 O2



CM 2

CRN 64-19-7

CMF C2 H4 O2



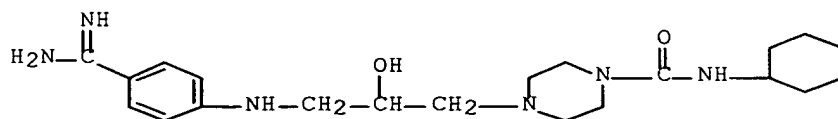
RN 227326-81-0 CAPLUS

CN 1-Piperazinecarboxamide, 4-[3-[[4-(aminoiminomethyl)phenyl]amino]-2-hydroxypropyl]-N-cyclohexyl-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227326-80-9

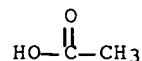
CMF C21 H34 N6 O2



CM 2

CRN 64-19-7

CMF C2 H4 O2

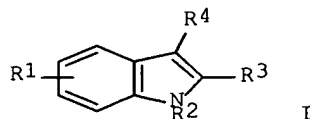


L10 ANSWER 11 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1999:375527 CAPLUS Full-text

DN 131:31874  
 TI Preparation of amidinophenylpropionylindoles and related compounds as thrombin inhibitors.  
 IN Heckel, Armin; Walter, Rainer; Soyka, Rainer; Stassen, Jean-Marie; Wienen, Wolfgang; Binder, Klaus  
 PA Boehringer Ingelheim Pharma KG, Germany  
 SO PCT Int. Appl., 173 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9928297	A1	19990610	WO 1998-EP7661	19981127 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	DE 19753522	A1	19990610	DE 1997-19753522	A 19971203
	AU 9922671	A	19990616	AU 1999-22671	19981127 <--
				DE 1997-19753522	A 19971203
				WO 1998-EP7661	W 19981127

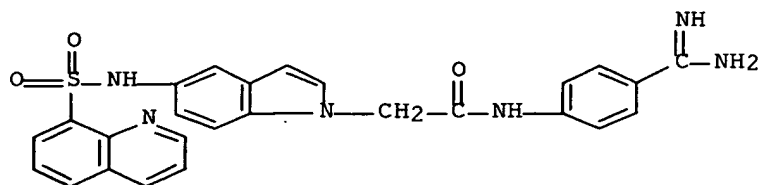
OS MARPAT 131:31874  
 GI



AB Title compds. [I; R1 = F, Cl, Br, CO<sub>2</sub>H, aminocarbonyl, aminosulfonyl, amino, group convertible to CO<sub>2</sub>H in vivo; 1 of R2, R4 = (CO<sub>2</sub>H- or group convertible to CO<sub>2</sub>H in vivo-substituted) alkyl, the other = R5A; A = (CO<sub>2</sub>H- or group convertible to CO<sub>2</sub>H in vivo-substituted) alkylene, etc.; R5 = R6NHC(:NH)-substituted Ph; R4 = H, alkyl; R6 = H, in vivo-cleavable group], were prepared as antithrombotics with inhibitory activity against serine proteases XII and fibrinogen receptors. Thus, 3-[3-(4-amidinophenyl)propionyl]-1-methylindole-5-carboxylic acid N-(2-carboxyethyl)-N-phenylamide hydrochloride (preparation given) showed a thrombin time ED<sub>200</sub> = 0.80 μM.

IT 226900-39-6P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of amidinophenylpropionylindoles and related compds. as thrombin inhibitors)

RN 226900-39-6 CAPLUS  
 CN 1H-Indole-1-acetamide, N-[4-(aminoiminomethyl)phenyl]-5-[(8-quinolinylsulfonyl)amino]-, monohydriodide (9CI) (CA INDEX NAME)



● HI

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 12 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:375282 CAPLUS Full-text

DN 131:44656

TI Preparation of N-(4-amidinophenyl)phenylglycineamides as factor  
VIIa/tissue factor inhibitors

IN Grobke, Katrin; Ji, Yu-hua; Wallbaum, Sabine; Weber, Lutz

PA F. Hoffmann-La Roche A.-G., Switz.

SO Eur. Pat. Appl., 46 pp.

CODEN: EPXXDW

DT Patent

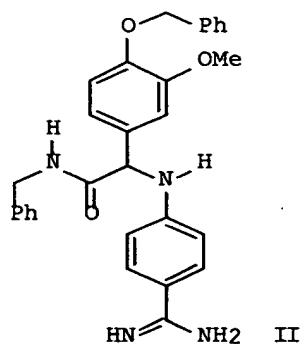
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 921116	A1	19990609	EP 1998-122169	19981126 <--
	EP 921116	B1	20030618		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
				EP 1997-121285	A 19971204
				EP 1998-121374	A 19981110
AT 243192	T	20030715	AT 1998-122169		19981126
			EP 1997-121285	A	19971204
			EP 1998-121374	A	19981110
PT 921116	T	20031128	PT 1998-122169		19981126
			EP 1997-121285	A	19971204
			EP 1998-121374	A	19981110
ES 2201396	T3	20040316	ES 1998-122169		19981126
			EP 1997-121285	A	19971204
			EP 1998-121374	A	19981110
CA 2255180	A1	19990604	CA 1998-2255180		19981202 <--
			EP 1997-121285	A	19971204
			EP 1998-121374	A	19981110
NZ 333126	A	20000623	NZ 1998-333126		19981202 <--
			EP 1997-121285	A	19971204
			EP 1998-121374	A	19981110
US 6140353	A	20001031	US 1998-204373		19981202 <--
			EP 1997-121285	A	19971204
			EP 1998-121374	A	19981110
IL 127361	A	20020912	IL 1998-127361		19981202 <--
			EP 1997-121285	A	19971204
			EP 1998-121374	A	19981110
ZA 9811077	A	19990604	ZA 1998-11077		19981203 <--
			EP 1997-121285	A	19971204
NO 9805646	A	19990607	NO 1998-5646		19981203 <--

			EP 1997-121285	A	19971204
			EP 1998-121374	A	19981110
AU 9895210	A	19990624	AU 1998-95210		19981203 <--
AU 739769	B2	20011018			
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MX 9810201	A	20000831	MX 1998-10201		19981203 <--
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RU 2202539	C2	20030420	RU 1998-122314		19981203
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CZ 295105	B6	20050518	CZ 1998-3969		19981203
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			EP 1998-121374	A	19981110
HU 9802808	A2	19990628	HU 1998-2808		19981204 <--
			EP 1997-121285	A	19971204
			EP 1998-121374	A	19981110
CN 1224714	A	19990804	CN 1998-126979		19981204 <--
CN 1115330	B	20030723			
			EP 1998-121374	A	19981110
JP 11246507	A	19990914	JP 1998-345875		19981204 <--
JP 3236267	B2	20011210			
			EP 1997-121285	A	19971204
			EP 1998-121374	A	19981110
BR 9805320	A	20000411	BR 1998-5320		19981204 <--
			EP 1997-121285	A	19971204
HR 980614	B1	20030228	HR 1998-614		19981204 <--
			EP 1997-121285	A	19971204
TW 544446	B	20030801	TW 1999-88102291		19990212
			EP 1997-121285	A	19971204
			EP 1998-121374	A	19981110
HK 1020941	A1	20031107	HK 1999-106072		19991223
			EP 1997-121285	A	19971204
			EP 1998-121374	A	19981110

OS MARPAT 131:44656  
GI



AB RR1NCOCHR2NHZC(:NG1)NHG2 [I; 1 of G1,G2 = H and the other = H, OH, alkyl, alkoxy, etc.; R = (un)substituted alkyl, cycloalkyl, aryl; R1 = H or alkyl; R2 = (un)substituted Ph or -pyridyl; Z = (3-hydroxy) 1,4-phenylene] were prepared. Thus, 3,4-(MeO)(PhCH2O)C6H3CHO, 4-(H2N)C6H4C(:NH)NH2, and PhCH2NC were condensed to give, after acidification, title compound II.HCl. Data for biol. activity of I were given.

IT 227022-04-0P 227022-13-1P 227022-16-4P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-(4-amidinophenyl)phenylglycineamides as factor VIIa/tissue factor inhibitors)

RN 227022-04-0 CAPLUS

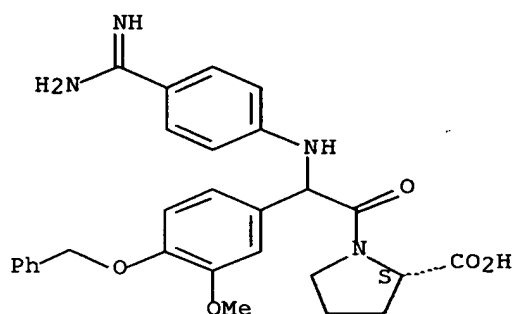
CN L-Proline, N-[4-(aminoiminomethyl)phenyl]-2-[3-methoxy-4-(phenylmethoxy)phenyl]glycyl-, acetate (9CI) (CA INDEX NAME)

CM 1

CRN 227022-03-9

CMF C28 H30 N4 O5

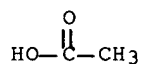
Absolute stereochemistry.



CM 2

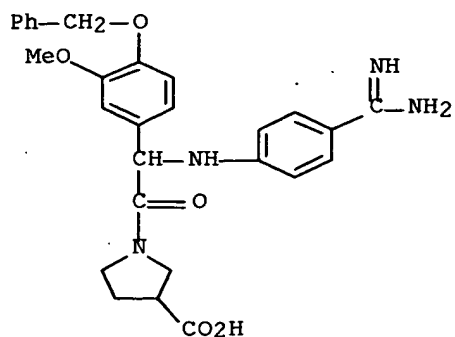
CRN 64-19-7

CMF C2 H4 O2



RN 227022-13-1 CAPLUS

CN 3-Pyrrolidinecarboxylic acid, 1-[[[4-(aminoiminomethyl)phenyl]amino][3-methoxy-4-(phenylmethoxy)phenyl]acetyl]- (9CI) (CA INDEX NAME)



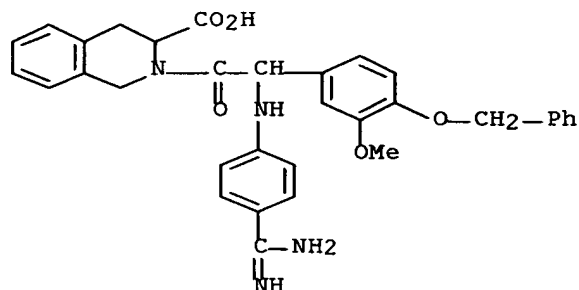
RN 227022-16-4 CAPLUS

CN 3-Isoquinolinecarboxylic acid, 2-[[[4-(aminoiminomethyl)phenyl]amino][3-methoxy-4-(phenylmethoxy)phenyl]acetyl]-1,2,3,4-tetrahydro-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 227022-15-3

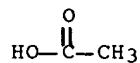
CMF C33 H32 N4 O5



CM 2

CRN 64-19-7

CMF C2 H4 O2



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 13 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:303224 CAPLUS Full-text

DN 131:9621

TI Pharmaceutical tapes containing 2, 3-diketopiperazine derivatives or salts

IN Yamakawa, Tetsunori; Takakura, Keiko; Kubo, Yoshiko; Kotani, Masahiro

PA Toyama Chemical Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11124332	A	19990511	JP 1998-241086 JP 1997-231697	19980812 <-- A 19970813

OS MARPAT 131:9621

AB Pharmaceutical tapes comprise a support layer and a plaster layer contg. 2, 3-diketopiperazine derivs. or salts [such as 3-[4-[3-[4- amidinopheoxy]propyl]-2,3-dioxopiperazin-1-yl]-3-[pyridin-3-yl]propionic acid], urea, polyethylene glycol and/or polypropylene glycol and N-containing polymer membrane agents. The prepsns. showed high bioavailability.

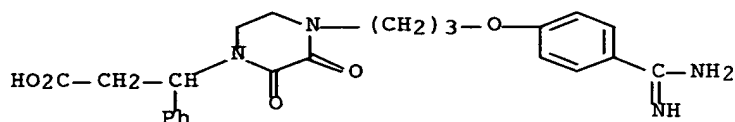
IT 179415-67-9 179415-71-5 179415-76-0  
 179415-82-8 179415-84-0 179415-85-1  
 225367-83-9 225367-90-8

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);  
 USES (Uses)

(pharmaceutical tapes containing 2, 3-diketopiperazine derivs. or salts and other ingredients)

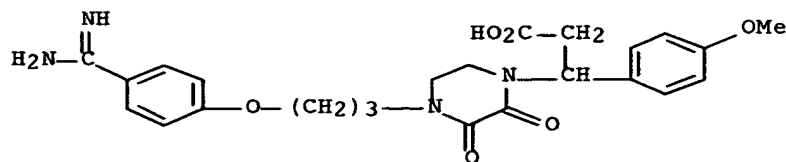
RN 179415-67-9 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-dioxo- $\beta$ -phenyl- (9CI) (CA INDEX NAME)



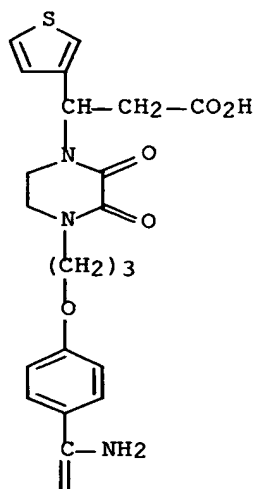
RN 179415-71-5 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]- $\beta$ -(4-methoxyphenyl)-2,3-dioxo- (9CI) (CA INDEX NAME)



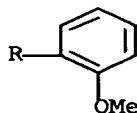
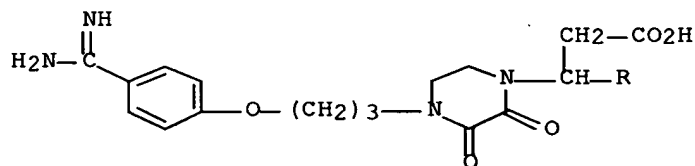
RN 179415-76-0 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-dioxo- $\beta$ -3-thienyl- (9CI) (CA INDEX NAME)



RN 179415-82-8 CAPLUS

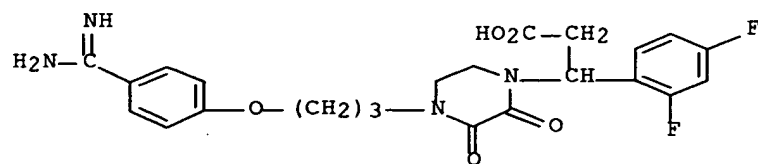
CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
β-(2-methoxyphenyl)-2,3-dioxo- (9CI) (CA INDEX NAME)



RN 179415-84-0 CAPLUS

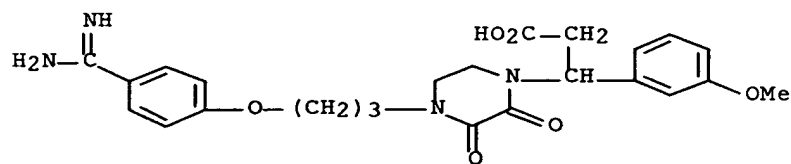
CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
β-(2,4-difluorophenyl)-2,3-dioxo- (9CI) (CA INDEX NAME)





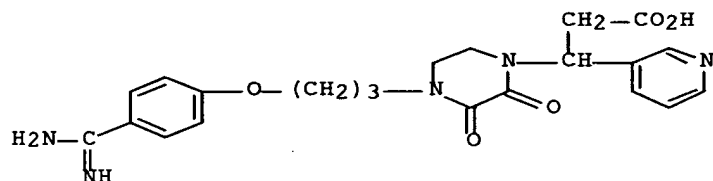
RN 179415-85-1 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
β-(3-methoxyphenyl)-2,3-dioxo- (9CI) (CA INDEX NAME)



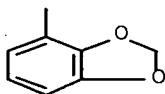
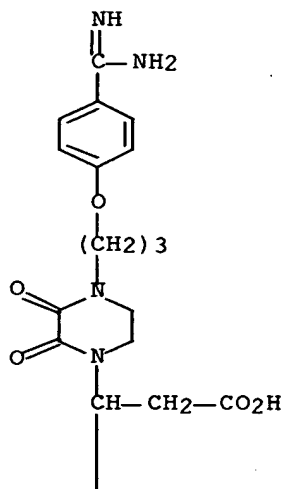
RN 225367-83-9 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-  
dioxo-β-3-pyridinyl- (9CI) (CA INDEX NAME)



RN 225367-90-8 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
β-1,3-benzodioxol-4-yl-2,3-dioxo- (9CI) (CA INDEX NAME)

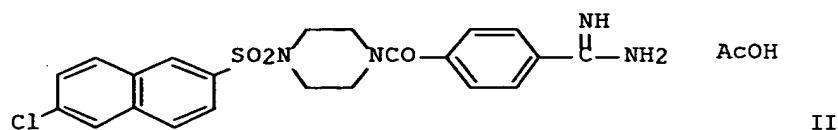
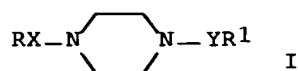


L10 ANSWER 14 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1999:233904 CAPLUS Full-text  
 DN 130:282084  
 TI Benzamidine derivatives as factor Xa inhibitors  
 IN Dorsch, Dieter; Juraszyk, Horst; Wurziger, Hanns; Bernotat-Danielowski,  
 Sabine; Melzer, Guido  
 PA Merck Patent G.m.b.H., Germany  
 SO PCT Int. Appl., 79 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9916751	A1	19990408	WO 1998-EP5898	19980916 <--	
	W:			AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW		
	RW:			GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
	DE 19743435	A1	19990408	DE 1997-19743435	A 19971001	
	CA 2305568	A1	19990408	DE 1997-19743435	19971001 <--	
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				DE 1997-19743435	A 19971001	
				WO 1998-EP5898	W 19980916	

AU 9895407	A	19990423	AU 1998-95407	19980916 <--
AU 736080	B2	20010726		
			DE 1997-19743435	A 19971001
			WO 1998-EP5898	W 19980916
EP 1025086	A1	20000809	EP 1998-948982	19980916 <--
EP 1025086	B1	20030625		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO				
			DE 1997-19743435	A 19971001
			WO 1998-EP5898	W 19980916
BR 9812699	A	20000822	BR 1998-12699	19980916 <--
			DE 1997-19743435	A 19971001
			WO 1998-EP5898	W 19980916
JP 2001518467	T	20011016	JP 2000-513837	19980916 <--
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			WO 1998-EP5898	W 19980916
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			WO 1998-EP5898	W 19980916
AT 243681	T	20030715	AT 1998-948982	19980916
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			WO 1998-EP5898	W 19980916
IN 1998CA01737	A	20050311	IN 1998-CA1737	19980925
			DE 1997-19743435	A 19971001
ZA 9808937	A	19990331	ZA 1998-8937	19980930 <--
			DE 1997-19743435	A 19971001
NO 2000001687	A	20000331	NO 2000-1687	20000331 <--
			DE 1997-19743435	A 19971001
			WO 1998-EP5898	W 19980916
US 6492368	B1	20021210	US 2000-509729	20000331 <--
			DE 1997-19743435	A 19971001
			WO 1998-EP5898	W 19980916

OS MARPAT 130:282084  
GI



AB Title compds. I [X = bond, CO, (un)substituted CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, CH<sub>2</sub>CO, CH<sub>2</sub>CH<sub>2</sub>CO, CH:CHCO, NHCO; Y = (un)substituted CH<sub>2</sub>, SO<sub>2</sub>, CO, CO<sub>2</sub>, CONH; R = (un)substituted Ph; R<sub>1</sub> = H, (un)substituted alkyl, oxaalkyl, thiaalkyl, alkenyl, cycloalkyl, aryl, aryloxy, heterocyclic, aralkenyl] are inhibitors of

coagulation factor Xa and can be used for preventing or treating thromboembolic disorders (no data). Thus, 4-(5-methyl-1,2,4-oxadiazol-3-yl)benzoic acid was converted to the acid chloride, treated with N-tert.-butoxycarbonylpiperazine, and deblocked to give [4-(5-methyl-1,2,4-oxadiazol-3-yl)phenyl]piperazin-1-ylmethanone which was treated with 6-chloro-2-naphthalenesulfonyl chloride and reduced to give the benzamidine II.

IT 222544-35-6P 222544-37-8P 222544-39-0P

222544-41-4P 222544-43-6P 222544-45-8P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperazinybenzamidine derivs. as factor Xa inhibitors)

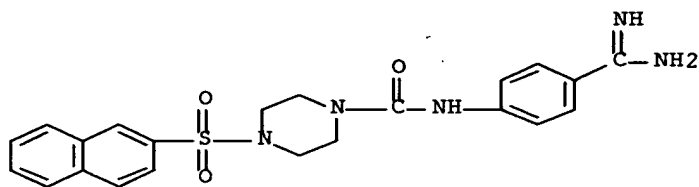
RN 222544-35-6 CAPLUS

CN 1-Piperazinecarboxamide, N-[4-(aminoiminomethyl)phenyl]-4-(2-naphthalenylsulfonyl)-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 222544-34-5

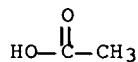
CMF C22 H23 N5 O3 S



CM 2

CRN 64-19-7

CMF C2 H4 O2



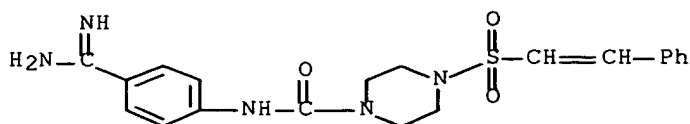
RN 222544-37-8 CAPLUS

CN 1-Piperazinecarboxamide, N-[4-(aminoiminomethyl)phenyl]-4-[(2-phenylethenyl)sulfonyl]-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 222544-36-7

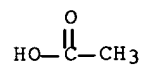
CMF C20 H23 N5 O3 S



CM 2

CRN 64-19-7

CMF C2 H4 O2



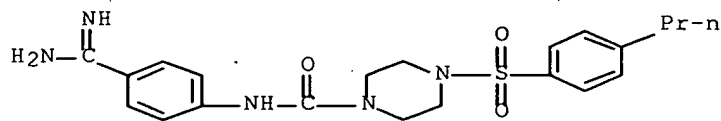
RN 222544-39-0 CAPLUS

CN 1-Piperazinecarboxamide, N-[4-(aminoiminomethyl)phenyl]-4-[(4-propylphenyl)sulfonyl]-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 222544-38-9

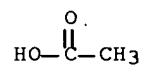
CMF C21 H27 N5 O3 S



CM 2

CRN 64-19-7

CMF C2 H4 O2



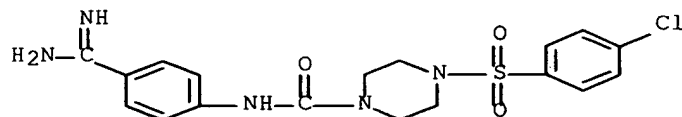
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CN 1-Piperazinecarboxamide, N-[4-(aminoiminomethyl)phenyl]-4-[(4-chlorophenyl)sulfonyl]-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 222544-40-3

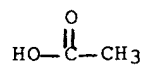
CMF C18 H20 Cl N5 O3 S



CM 2

CRN 64-19-7

CMF C2 H4 O2



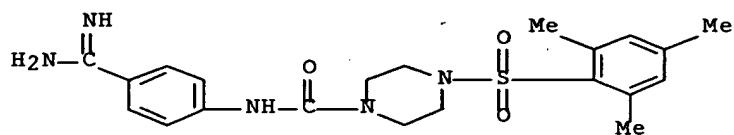
RN 222544-43-6 CAPLUS

CN 1-Piperazinecarboxamide, N-[4-(aminoiminomethyl)phenyl]-4-[(2,4,6-trimethylphenyl)sulfonyl]-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 222544-42-5

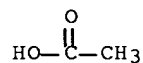
CMF C21 H27 N5 O3 S



CM 2

CRN 64-19-7

CMF C2 H4 O2



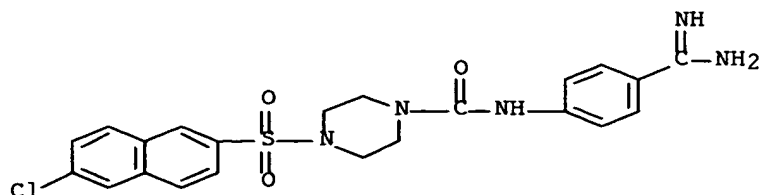
RN 222544-45-8 CAPLUS

CN 1-Piperazinecarboxamide, N-[4-(aminoiminomethyl)phenyl]-4-[(6-chloro-2-naphthalenyl)sulfonyl]-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 222544-44-7

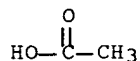
CMF C22 H22 Cl N5 O3 S



CM 2

CRN 64-19-7

CMF C2 H4 O2



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 15 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:35065 CAPLUS Full-text

DN 130:110166

TI Preparation of amidinophenylpropionyltetrahydroquinolines and related compounds as antithrombotics.

IN Heckel, Armin; Soyka, Rainer; Grell, Wolfgang; Haaksma, Eric; Binder, Klaus; Zimmermann, Rainer

PA Boehringer Ingelheim Pharma K.-G., Germany

SO Ger. Offen., 50 pp.

CODEN: GWXXBX

DT Patent

LA German

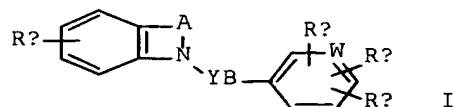
FAN.CNT 1

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PI	DE 19727117	A1	19990107	DE 1997-19727117	19970626 <--
	CA 2288744	A1	19990107	CA 1998-2288744	19980622 <--
				DE 1997-19727117	A 19970626
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W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				DE 1997-19727117	A 19970626
AU	9887279	A	19990119	AU 1998-87279	19980622 <--
				DE 1997-19727117	A 19970626
				WO 1998-EP3800	W 19980622
EP	991624	A1	20000412	EP 1998-938621	19980622 <--
EP	991624	B1	20031119		
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MX 9911261	A	20000630	WO 1998-EP3800	W 19980622
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			DE 1997-19727117	A 19970626
			WO 1998-EP3800	W 19980622
US 6300342	B1	20011009	US 1999-457961	19991209 <--
			DE 1997-19727117	A 19970626
			WO 1998-EP3800	A1 19980622

OS MARPAT 130:110166

GI



AB Title compds. [I; Ra = H, NO<sub>2</sub>, amino, aminocarbonyl; Rb = cyano, aminomethyl, (substituted) amidino; Rc, Rd = H, F, Cl, Br, iodo, Me, MeO, NO<sub>2</sub>, amino; A = (substituted) ethylene, ethylenylene, propylene, etc.; B = bond, (substituted) methylene, ethylene, ethenylene, propylene, etc.; W = N, CH; Y = CH<sub>2</sub>, CO, CS], were prepared Thus, 1-[3-(4- amidinophenyl)propionyl]-1,2,3,4-tetrahydroquinoline-6-carboxylic acid methyl-N-phenylamide (preparation given) had a thrombin time ED200 = 0.02 μM.

IT 219644-31-2P 219644-32-3P 219645-33-7P

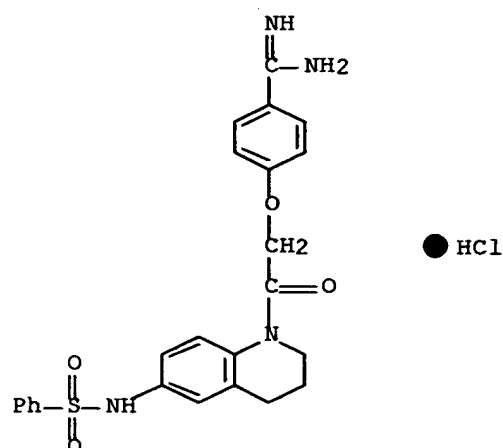
219645-47-3P 219645-78-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of amidinophenylpropionyltetrahydroquinolines and related compds. as antithrombotics)

RN 219644-31-2 CAPLUS

CN 6-Quinolinamine, 1-[[4-(aminoiminomethyl)phenoxy]acetyl]-1,2,3,4-tetrahydro-N-(phenylsulfonyl)-, monohydrochloride (9CI) (CA INDEX NAME)

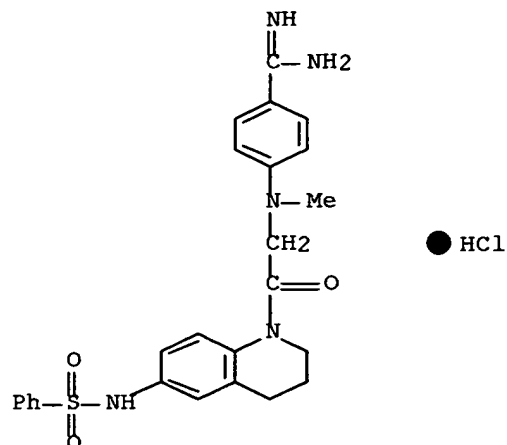


RN 219644-32-3 CAPLUS

CN 6-Quinolinamine, 1-[[[4-(aminoiminomethyl)phenyl]methylamino]acetyl]-



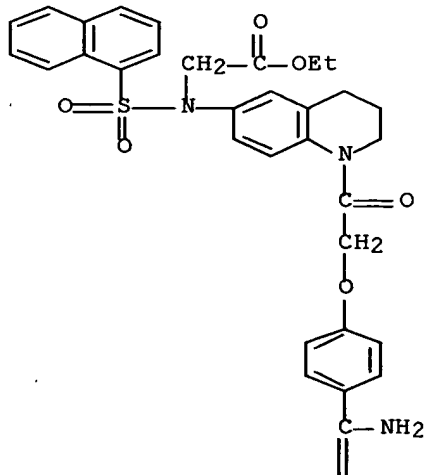
1,2,3,4-tetrahydro-N-(phenylsulfonyl)-, monohydrochloride (9CI) (CA INDEX NAME)



RN 219645-33-7 CAPLUS

CN Glycine, N-[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-1,2,3,4-tetrahydro-6-quinolinyl]-N-(1-naphthalenylsulfonyl)-, ethyl ester, monohydriodide (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

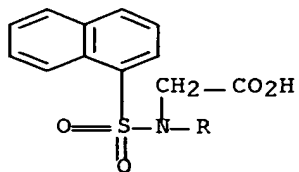
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NH

● HI

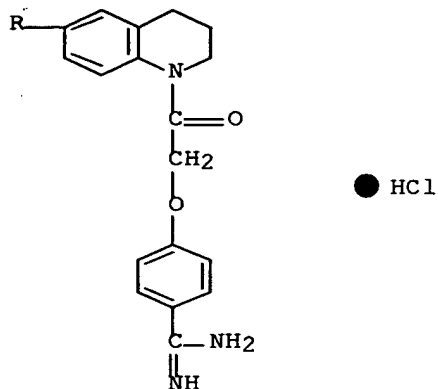
RN 219645-47-3 CAPLUS

CN Glycine, N-[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-1,2,3,4-tetrahydro-6-quinolinyl]-N-(1-naphthalenylsulfonyl)-, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

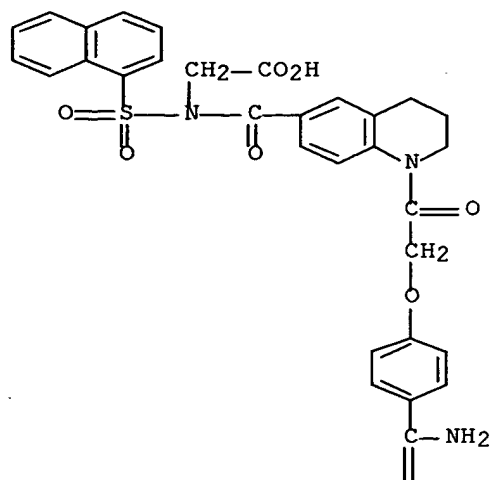


PAGE 2-A



RN 219645-78-0 CAPLUS

CN Glycine, N-[[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-1,2,3,4-tetrahydro-6-quinolinyl]carbonyl]-N-(1-naphthalenylsulfonyl)- (9CI) (CA INDEX NAME)

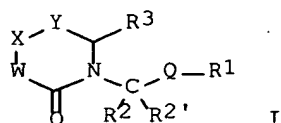


L10 ANSWER 16 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1998:175945 CAPLUS Full-text  
 DN 128:244342  
 TI Preparation of lactam inhibitors of thrombin  
 IN St. Denis, Yves; Siddiqui, M. Arshad; Cody, Wayne Livingston; Edmunds, Jeremy John; Plummer, Janet Samartino  
 PA Biochem Pharma, Inc., Can.  
 SO PCT Int. Appl., 106 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9809987	A1	19980312	WO 1997-US15312	19970905 <--
	W:			AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM	
	RW:			GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG	
				GB 1996-18687	A 19960906
				US 1996-25599P	P 19960906
	AU 9741723	A	19980326	AU 1997-41723	19970905 <--
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				WO 1997-US15312	W 19970905

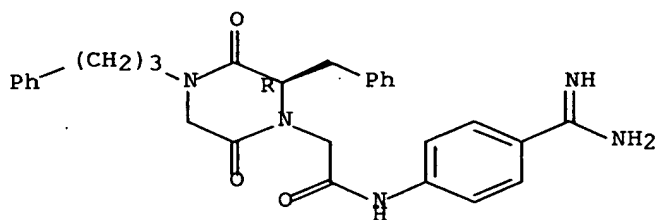
OS MARPAT 128:244342

GI



- AB Heterocyclic thrombin inhibitors I (W, X = CHR<sub>4</sub>, CR<sub>4</sub>, NR<sub>4</sub>, N, O, S, SO, SO<sub>2</sub>, provided that at least one of W and X is NR<sub>4</sub>, N, O, S, SO, SO<sub>2</sub>; Y = CHR<sub>4</sub>, CR<sub>4</sub>, CO; Q = CO, CS, CHR<sub>4</sub>; R<sub>1</sub> is a polar amino acid residue or derivative or analog optionally substituted with an amino acid, peptide, or heterocycle; R<sub>2</sub>, R<sub>2</sub>' = H, halo, or alkyl optionally substituted by an aryl, heterocyclic or cycloalkyl group; R<sub>3</sub>, R<sub>4</sub> = H, NH<sub>2</sub>, alkylamino, CO<sub>2</sub>H, aryl, cycloalkyl, etc.) were prepared. Thus, N-[4-guanidino-1-(thiazole-2-carbonyl)butyl]-2-[2-oxo-4-(3-phenylpropionyl)-1-piperazinyl]acetamide, prepared by a coupling procedure in which the guanidino group is protected by 4-methoxy-2,3,6-trimethylbenzenesulfonyl, was assayed for thrombin affinity (IC<sub>50</sub> = 35 nM).
- IT 204691-44-1P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of lactam inhibitors of thrombin)
- RN 204691-44-1 CAPLUS
- CN 1-Piperazineacetamide, N-[4-(aminoiminomethyl)phenyl]-3,6-dioxo-2-(phenylmethyl)-4-(3-phenylpropyl)-, (R)- (9CI) (CA INDEX NAME)

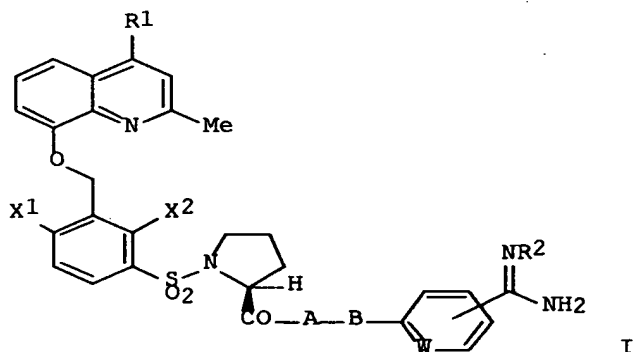
Absolute stereochemistry.



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 17 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1998:87728 CAPLUS Full-text  
 DN 128:154381  
 TI Preparation of N-benzenesulfonyl-L-proline derivatives as bradykinin B2 agonists  
 IN Dodey, Pierre; Bondoux, Michel; Houziaux, Patrick; Barth, Martine; Ou, Khan  
 PA Fournier Industrie et Sante, Fr.; Dodey, Pierre; Bondoux, Michel; Houziaux, Patrick; Barth, Martine; Ou, Khan  
 SO PCT Int. Appl., 72 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA French  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9803503	A1	19980129	WO 1997-FR1377	19970723 <--
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	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	FR 2751650	A1	19980130	FR 1996-9327	A 19960724
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	CA 2261743	A1	19980129	CA 1997-2261743	19970723 <--
				FR 1996-9327	A 19960724
	AU 9738536	A	19980210	AU 1997-38536	19970723 <--
				FR 1996-9327	A 19960724
				WO 1997-FR1377	W 19970723
	EP 925295	A1	19990630	EP 1997-935612	19970723 <--
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				WO 1997-FR1377	W 19970723
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				WO 1997-FR1377	W 19970723
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				FR 1996-9327	A 19960724
				WO 1997-FR1377	W 19970723
OS	MARPAT 128:154381				
GI					



AB N-benzenesulfonyl-L-proline derivs. I [X1, X2 = halo, alkoxy; R1 = H, trifluoroalkyl, alkyl; R2 = H, OH; A = NR3(CH2)n (R3 = H, Me and n = 0-3), 1,4-piperazinediyl, hexahydro-1,4-diazepine-1,4-diyl, NH(CH2)nCH(CH2CH2)2N [n

= 0-3, CH(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>N = 1,4-piperazinediyl]; B = bond, CO, COCH<sub>2</sub>, COCH<sub>2</sub>O, COCH:CH, SO<sub>2</sub>; W = CH, N] or their salts were prepared as bradykinin B<sub>2</sub> agonists. Thus, 1.2HCl (X<sub>1</sub> = X<sub>2</sub> = Cl, R<sub>1</sub> = Me, R<sub>2</sub> = H, A = NHCH<sub>2</sub>, B = bond, W = CH; the amidino group is in the 3-position) was prepared from N-[[3-[(2,4-dimethylquinolin-8-yl)oxymethyl]-2,4-dichlorophenyl]sulfonyl]-L-proline by sequential reaction with H<sub>2</sub>S, MeI, NH<sub>4</sub>OAc, and HCl. The product inhibited binding of [3H] bradykinin to the B<sub>2</sub> receptor in guinea pigs (100% activity).

IT 202602-40-2P 202602-44-6P 202602-49-1P

202602-52-6P 202602-53-7P 202602-56-0P

202602-62-8P 202602-66-2P 202720-61-4P

202720-64-7P 202720-67-0P 202720-69-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

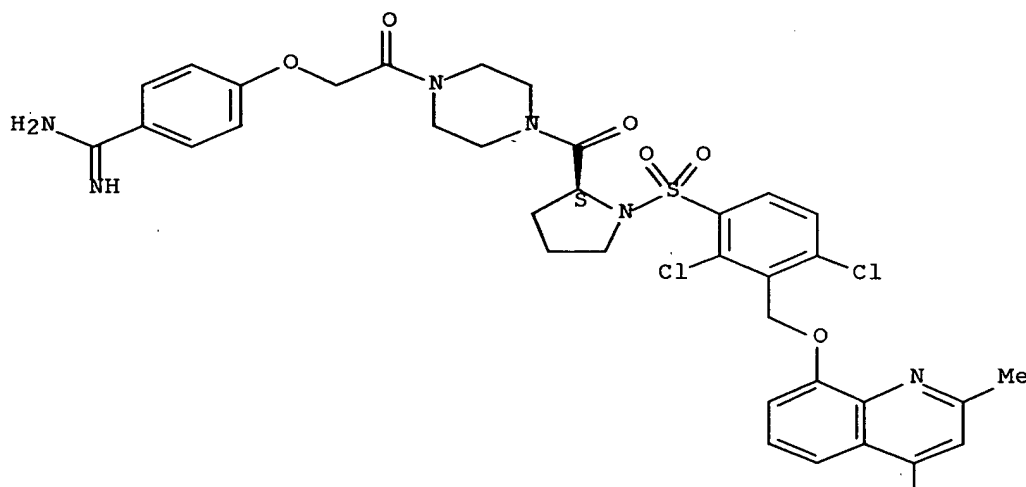
(preparation of benzenesulfonylproline derivs. as bradykinin B<sub>2</sub> agonists)

RN 202602-40-2 CAPLUS

CN Piperazine, 1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-[[[(2S)-1-[[2,4-dichloro-3-[[[(2,4-dimethyl-8-quinolinyl)oxy]methyl]phenyl]sulfonyl]-2-pyrrolidinyl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



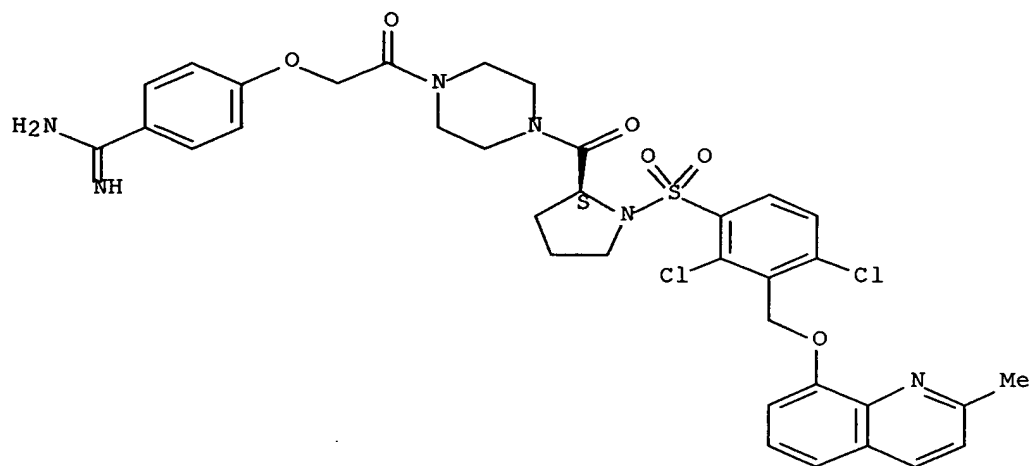
PAGE 2-A

Me

RN 202602-44-6 CAPLUS

CN Piperazine, 1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-[[[(2S)-1-[[2,4-dichloro-3-[[[(2-methyl-8-quinolinyl)oxy]methyl]phenyl]sulfonyl]-2-pyrrolidinyl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

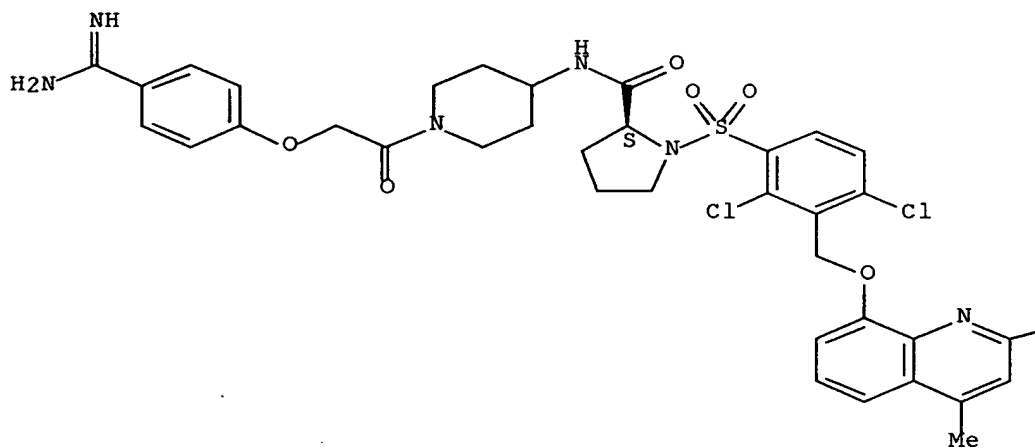


RN 202602-49-1 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]-1-[[2,4-dichloro-3-[[2,4-dimethyl-8-quinolinyl]oxy]methyl]phenyl]sulfonyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



Me

RN 202602-52-6 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]-1-[[2,4-dichloro-3-[[[(2,4-dimethyl-8-quinolinyl)oxy]methyl]phenyl]sulfonyl]-, (S)-, dimethanesulfonate (9CI)  
(CA INDEX NAME)

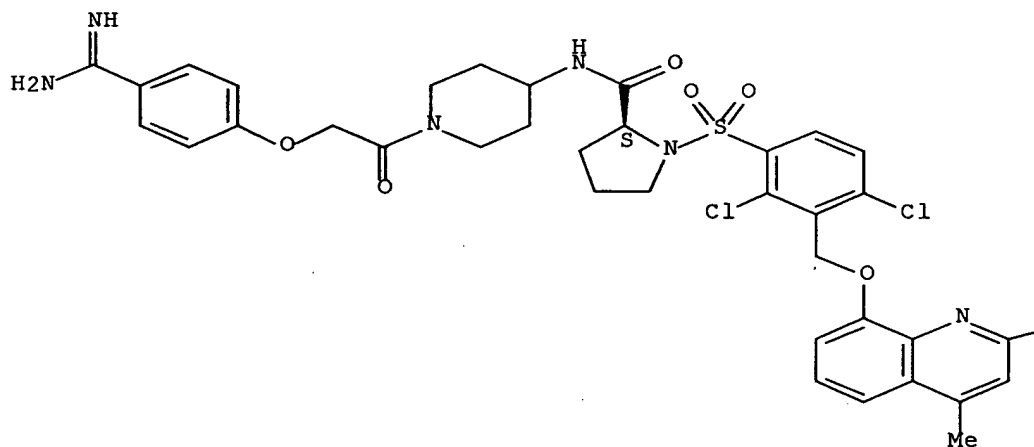
CM 1

CRN 202602-49-1

CMF C37 H40 Cl2 N6 O6 S

Absolute stereochemistry.

PAGE 1-A



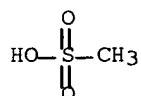


— Me

CM 2

CRN 75-75-2

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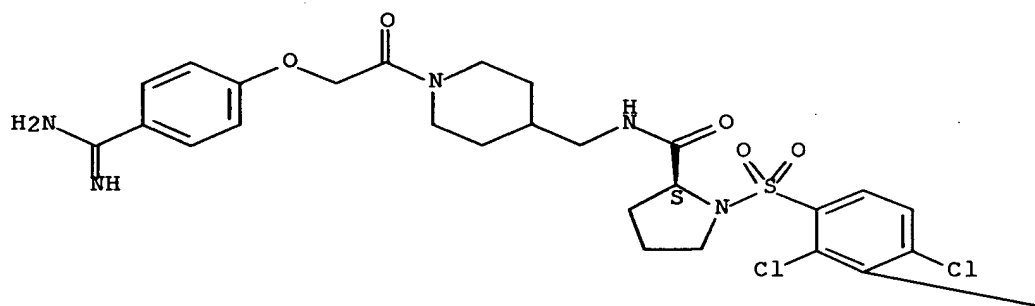


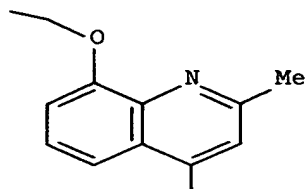
RN 202602-53-7 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]methyl]-1-[[2,4-dichloro-3-[[2,4-dimethyl-8-quinolinyl)oxy]methyl]phenyl]sulfonyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





RN 202602-56-0 CAPLUS

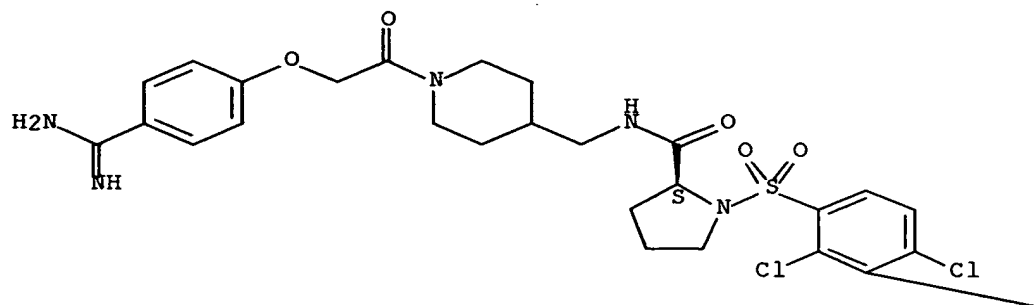
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(CA INDEX NAME)

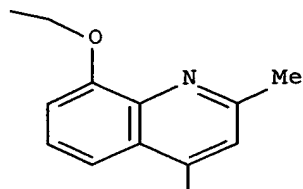
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CRN 202602-53-7

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Absolute stereochemistry.

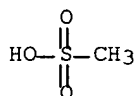




CM 2

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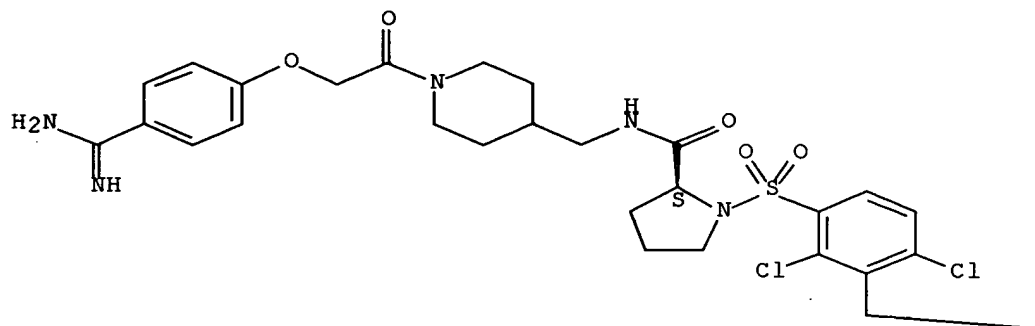


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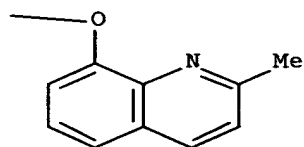
CN 2-Pyrrolidinecarboxamide, N-[[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]methyl]-1-[[2,4-dichloro-3-[(2-methyl-8-quinolinyl)oxy]methyl]phenyl]sulfonyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



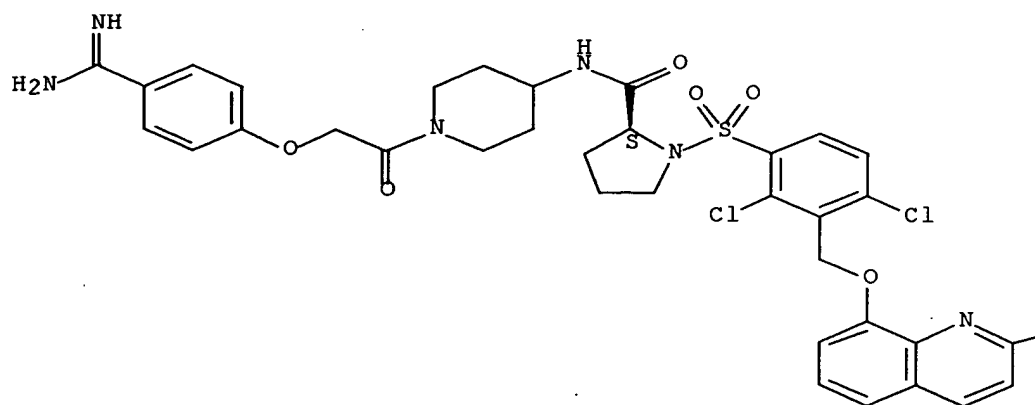
PAGE 1-B



RN 202602-66-2 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]-1-[[2,4-dichloro-3-[(2-methyl-8-quinolinyl)oxy]methyl]phenyl]sulfonyl]-, (S)- (9CI). (CA INDEX NAME)

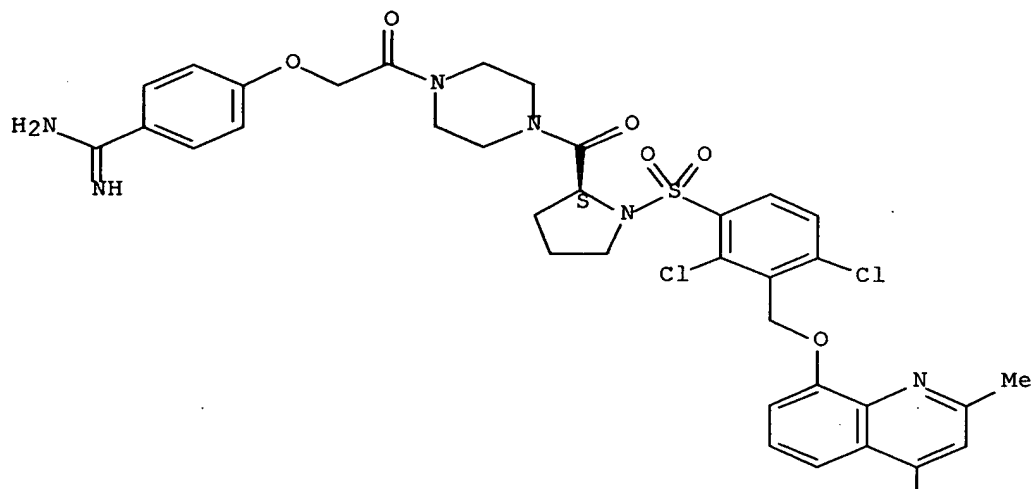
Absolute stereochemistry. Rotation (-).



—Me

RN 202720-61-4 CAPLUS  
 CN Piperazine, 1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-[[1-[[2,4-dichloro-3-  
 [[2,4-dimethyl-8-quinolinyloxy)methyl]phenyl]sulfonyl]-2-  
 pyrrolidinyl]carbonyl]-, dihydrochloride, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



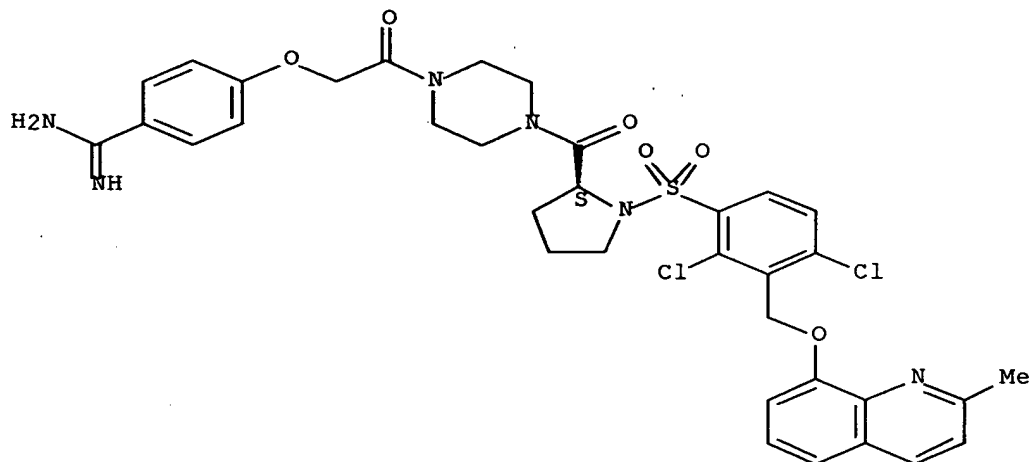
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●2 HCl

RN 202720-64-7 CAPLUS

CN Piperazine, 1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-[[1-[[2,4-dichloro-3-  
 [[(2-methyl-8-quinolinyloxy)methyl]phenyl]sulfonyl]-2-  
 pyrrolidinyl]carbonyl]-, dihydrochloride, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



PAGE 2-A

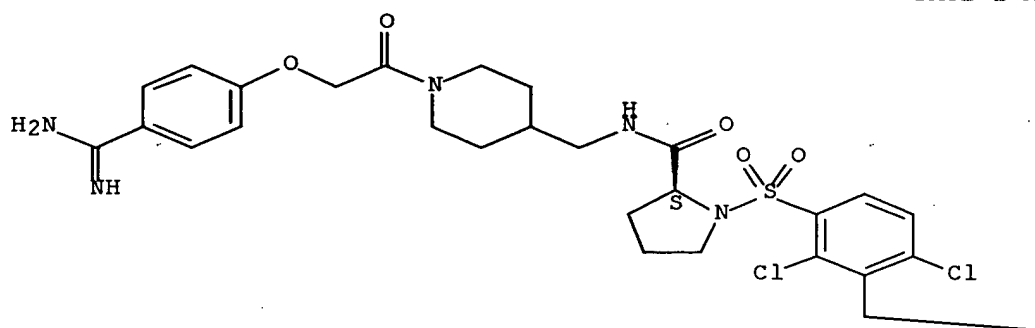
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RN 202720-67-0 CAPLUS

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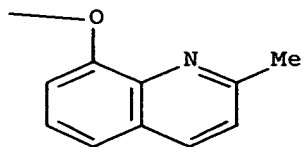
Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 1-B

●2 HCl

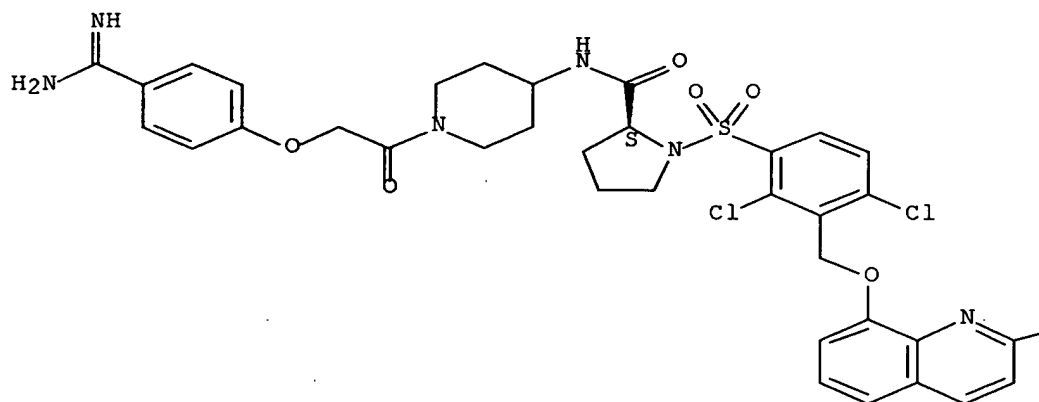


RN 202720-69-2 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]-1-[[2,4-dichloro-3-[(2-methyl-8-quinolinyl)oxy]methyl]phenyl]sulfonyl]-, dihydrochloride, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 1-B

● 2 HCl

— Me

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1996:644905 CAPLUS Full-text  
 DN 125:292448  
 TI Novel aromatic urea derivatives with DNA-binding ability  
 AU Fukutomi, Ryuuta; Kagechika, Hiroyuki; Hashimoto, Yuichi; Shudo, Koichi  
 CS Fac. Pharmaceutical Sciences, Univ. Tokyo, Tokyo, 113, Japan  
 SO Chemical & Pharmaceutical Bulletin (1996), 44(10), 1983=1985  
 CODEN: CPBTAL; ISSN: 0009-2363  
 PB Pharmaceutical Society of Japan  
 DT Journal  
 LA English  
 AB Several arom. urea derivs. were designed and synthesized as DNA-targeting agents. N,N'-Dimethyl-N,N'-bis[(4-amidylphenyl)aminocarbonyl]-2,6-diaminopyridine (1) and 1,3-bis[5-(glycylamino)pyrid-2-yl]urea (3) showed remarkable DNA-binding abilities as determined by ultrafiltration assay using calf thymus DNA, their potencies being equal to and half that of netropsin,



resp. Compound 1 inhibited the proliferation of both L1210 cells and KB cells with similar IC50 values to netropsin.

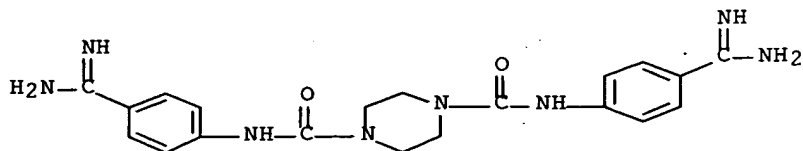
IT 182800-34-6

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(aromatic urea derivs. with DNA-binding ability)

RN 182800-34-6 CAPLUS

CN 1,4-Piperazinedicarboxamide, N,N'-bis[4-(aminoiminomethyl)phenyl]- (9CI)  
(CA INDEX NAME)



L10 ANSWER 19 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1996:469685 CAPLUS Full-text

DN 125:114709

TI Preparation of diketopiperazine derivatives as platelet aggregation inhibitors

IN Ono, Satoshi; Yamafuji, Tetsuo; Yamamoto, Hirohiko; Egawa, Hiroyuki; Furuta, Yousuke; Kaga, Hidetoshi

PA Toyama Chemical Co., Ltd., Japan

SO PCT Int. Appl., 103 pp.

CODEN: PIXXD2

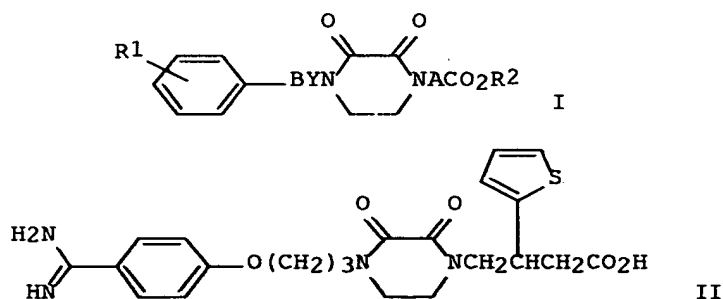
DT Patent

LA Japanese

FAN.CNT 1

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OS	MARPAT 125:114709				
GT					



AB The title compds. I [R1 represents optionally protected amidino; R2 represents hydrogen or a carboxyl-protective group; A represents optionally substituted lower alkylene; B represents O, CONH, NHCO or SO<sub>2</sub>NH; Y represents optionally substituted lower alkylene, and the broken line represents a single or double bond] are prepared The title compound II (NMR data given) in vitro showed IC<sub>50</sub> of 0.12  $\mu$ M against ADP-induced platelet aggregation. I are glycoprotein IIb/IIIa receptor antagonists.

IT 179415-52-2P 179415-53-3P 179415-54-4P  
179415-55-5P 179415-56-6P 179415-57-7P

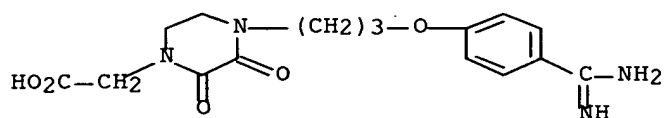
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 179416-02-5P 179416-04-7P 179416-05-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of diketopiperazine derivs. as platelet aggregation inhibitors)

RN 179415-52-2 CAPLUS

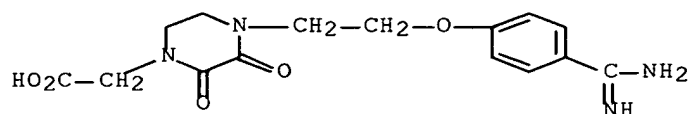
CN 1-Piperazineacetic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-dioxo-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

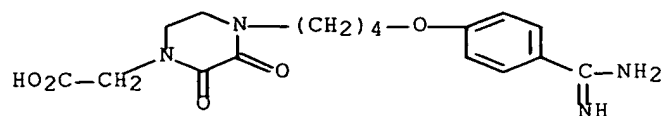
RN 179415-53-3 CAPLUS

CN 1-Piperazineacetic acid, 4-[2-[4-(aminoiminomethyl)phenoxy]ethyl]-2,3-dioxo- (9CI) (CA INDEX NAME)



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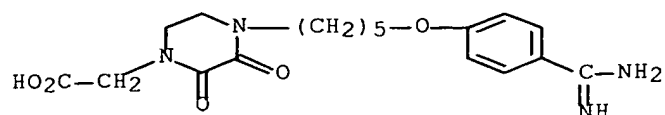
CN 1-Piperazineacetic acid, 4-[4-[4-(aminoiminomethyl)phenoxy]butyl]-2,3-dioxo- (9CI) (CA INDEX NAME)



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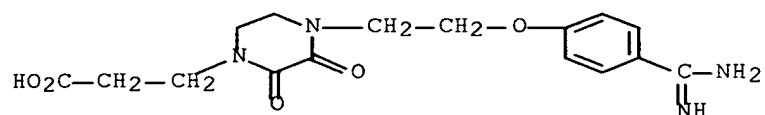
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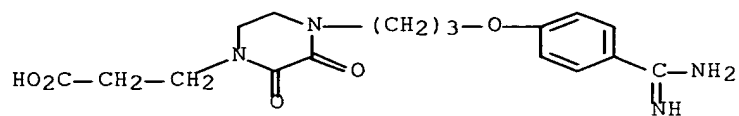
RN 179415-56-6 CAPLUS

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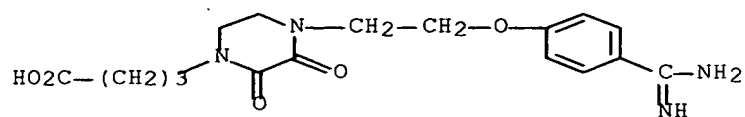
RN 179415-57-7 CAPLUS

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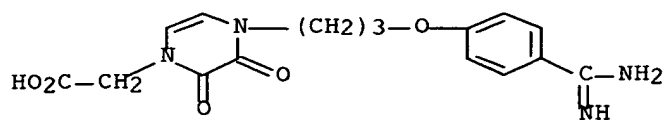
RN 179415-58-8 CAPLUS

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RN 179415-59-9 CAPLUS

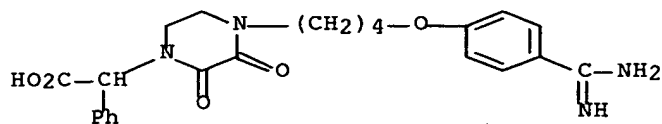
CN 1(2H)-Pyrazineacetic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-3,4-dihydro-2,3-dioxo-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

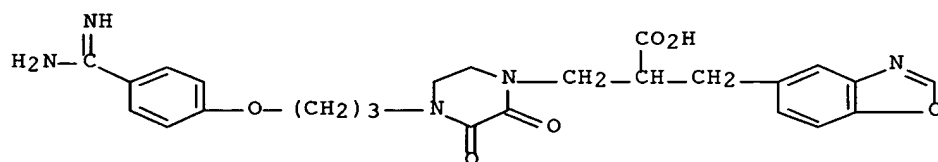
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CN 1-Piperazineacetic acid, 4-[4-[4-(aminoiminomethyl)phenoxy]butyl]-2,3-dioxo-α-phenyl- (9CI) (CA INDEX NAME)



RN 179415-61-3 CAPLUS

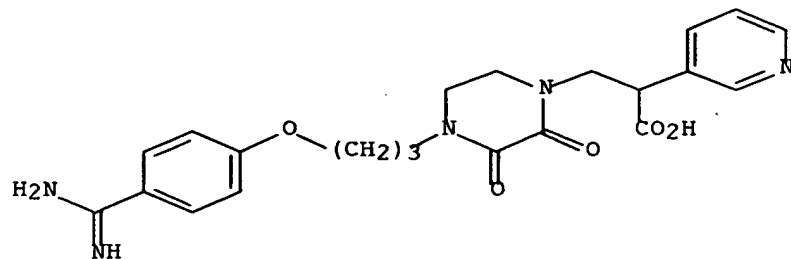
CN 5-Benzoxazolepropanoic acid, α-[[4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-dioxo-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 179415-64-6 CAPLUS

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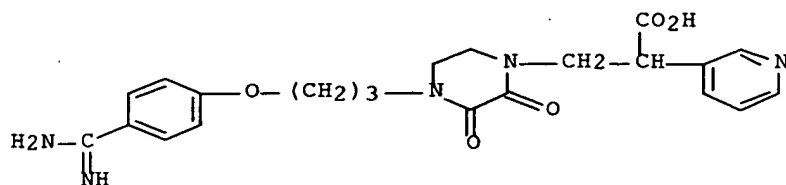
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RN 179415-65-7 CAPLUS

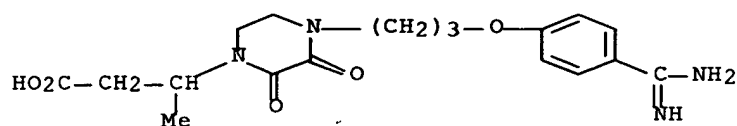
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dioxo- $\alpha$ -3-pyridinyl- (9CI) (CA INDEX NAME)



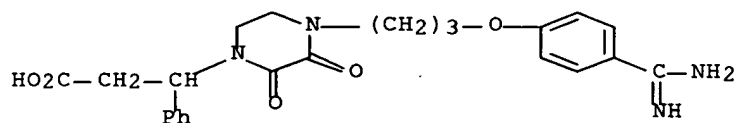
RN 179415-66-8 CAPLUS

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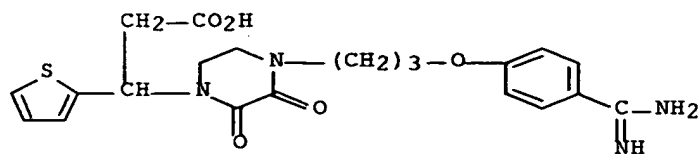
RN 179415-67-9 CAPLUS

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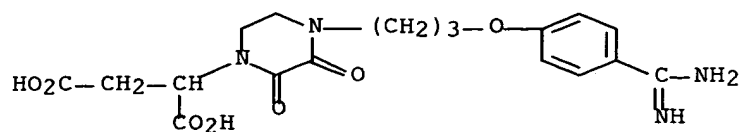
RN 179415-68-0 CAPLUS

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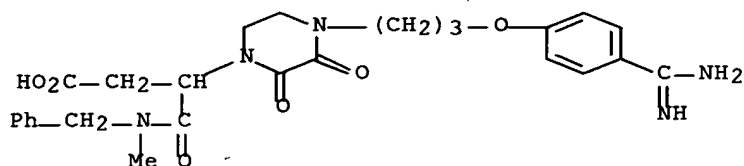
RN 179415-69-1 CAPLUS

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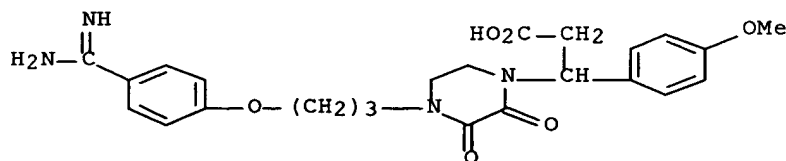


● Na

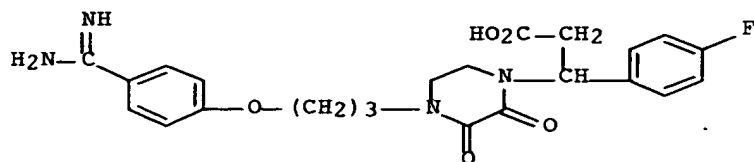
RN 179415-70-4 CAPLUS

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RN 179415-71-5 CAPLUS

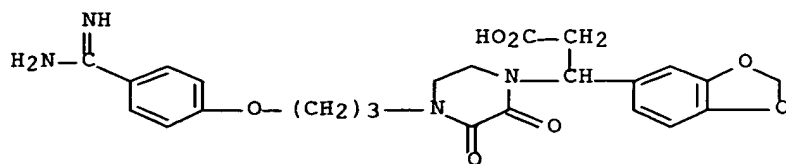
CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
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RN 179415-72-6 CAPLUS

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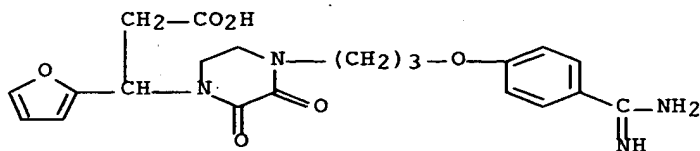
RN 179415-73-7 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
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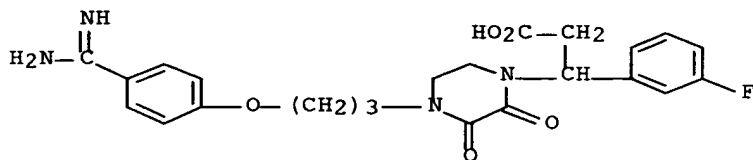
RN 179415-74-8 CAPLUS

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RN 179415-75-9 CAPLUS

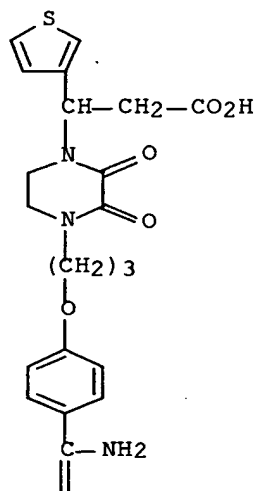
CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
β-(3-fluorophenyl)-2,3-dioxo- (9CI) (CA INDEX NAME)



RN 179415-76-0 CAPLUS

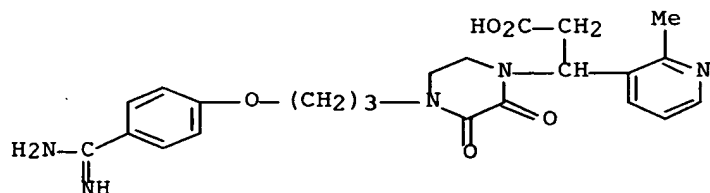
CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-  
dioxo-β-3-thienyl- (9CI) (CA INDEX NAME)





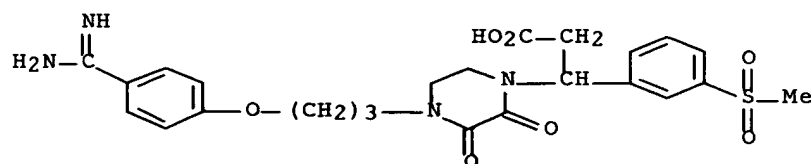
RN 179415-77-1 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
 $\beta$ -(2-methyl-3-pyridinyl)-2,3-dioxo- (9CI) (CA INDEX NAME)

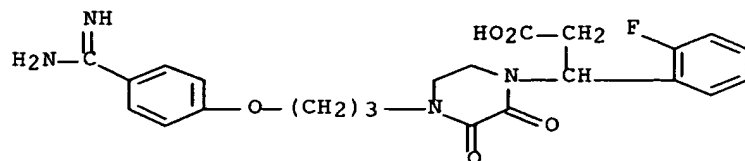


RN 179415-78-2 CAPLUS

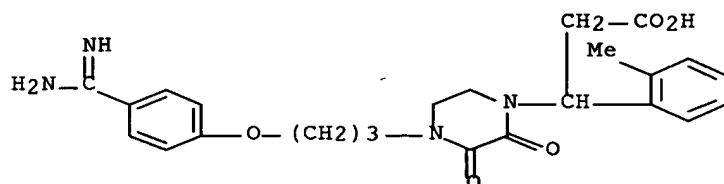
CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
 $\beta$ -[3-(methylsulfonyl)phenyl]-2,3-dioxo- (9CI) (CA INDEX NAME)



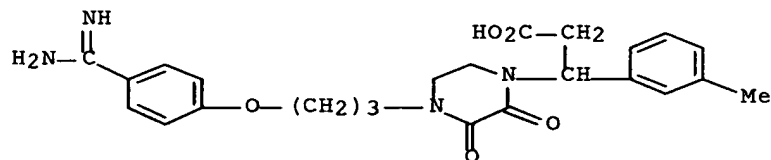
RN 179415-79-3 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
β-(2-fluorophenyl)-2,3-dioxo- (9CI) (CA INDEX NAME)

RN 179415-80-6 CAPLUS

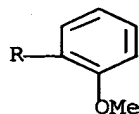
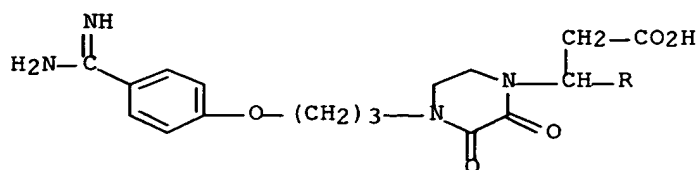
CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
β-(2-methylphenyl)-2,3-dioxo- (9CI) (CA INDEX NAME)

RN 179415-81-7 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
β-(3-methylphenyl)-2,3-dioxo- (9CI) (CA INDEX NAME)

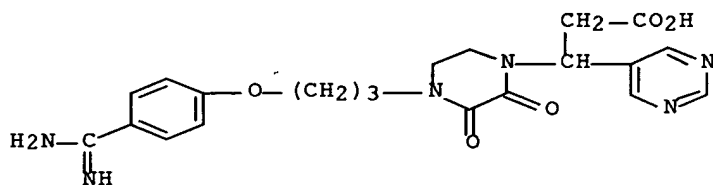
RN 179415-82-8 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
β-(2-methoxyphenyl)-2,3-dioxo- (9CI) (CA INDEX NAME)



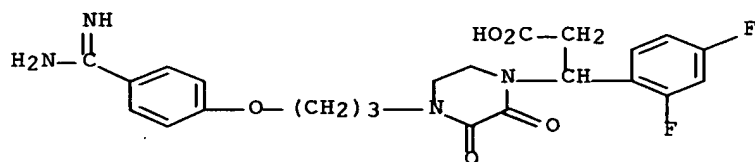
RN 179415-83-9 CAPLUS

CN 5-Pyrimidinepropanoic acid,  $\beta$ -[4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-dioxo-1-piperazinyl]- (9CI) (CA INDEX NAME)



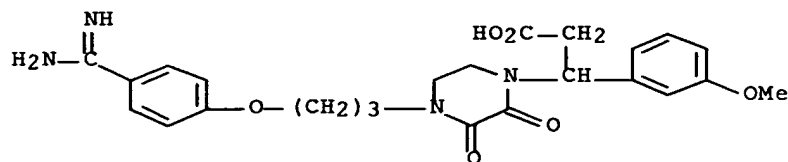
RN 179415-84-0 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]- $\beta$ -(2,4-difluorophenyl)-2,3-dioxo- (9CI) (CA INDEX NAME)



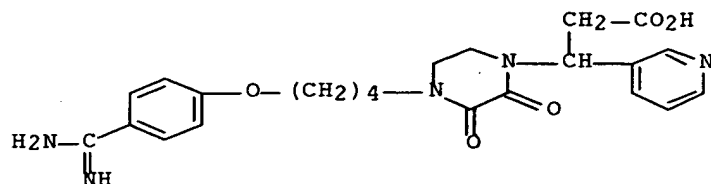
RN 179415-85-1 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]- $\beta$ -(3-methoxyphenyl)-2,3-dioxo- (9CI) (CA INDEX NAME)



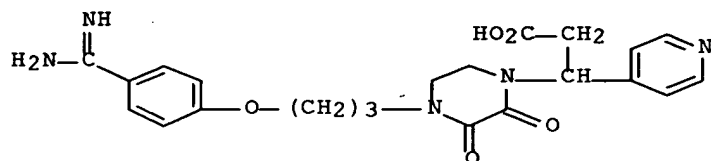
RN 179415-86-2 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[4-[4-(aminoiminomethyl)phenoxy]butyl]-2,3-dioxo- $\beta$ -3-pyridinyl- (9CI) (CA INDEX NAME)



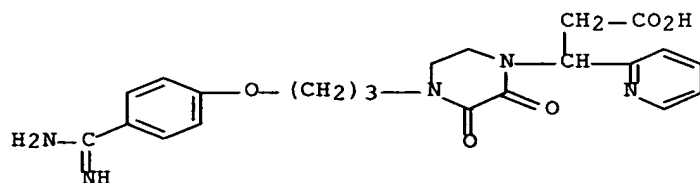
RN 179415-87-3 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-dioxo- $\beta$ -4-pyridinyl- (9CI) (CA INDEX NAME)



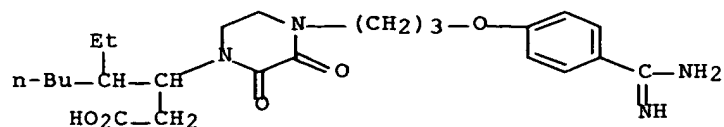
RN 179415-88-4 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-dioxo- $\beta$ -2-pyridinyl- (9CI) (CA INDEX NAME)



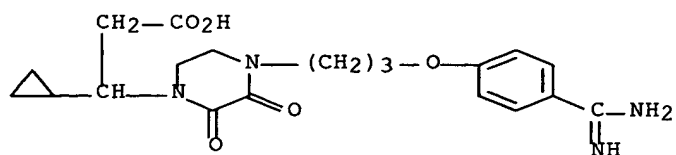
RN 179415-89-5 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]- $\beta$ -(1-ethylpentyl)-2,3-dioxo- (9CI) (CA INDEX NAME)



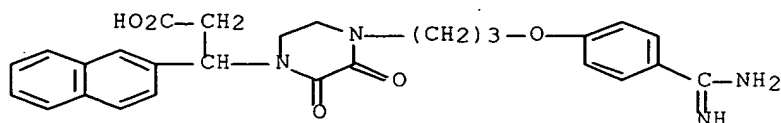
RN 179415-90-8 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]- $\beta$ -cyclopropyl-2,3-dioxo- (9CI) (CA INDEX NAME)



RN 179415-91-9 CAPLUS

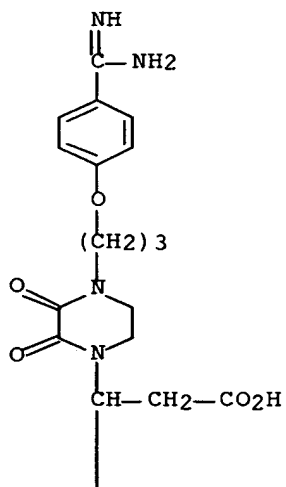
CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
β-2-naphthalenyl-2,3-dioxo- (9CI) (CA INDEX NAME)



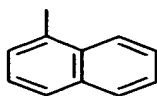
RN 179415-92-0 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-  
β-1-naphthalenyl-2,3-dioxo- (9CI) (CA INDEX NAME)

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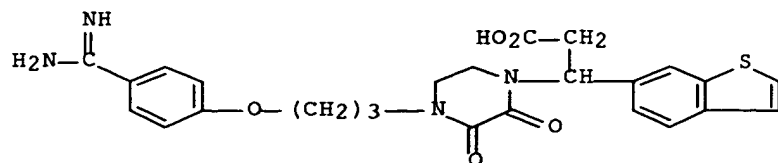
PAGE 2-A



RN 179415-93-1 CAPLUS

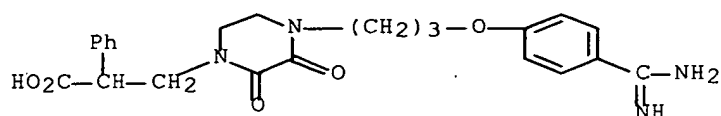
CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-

$\beta$ -benzo[b]thien-6-yl-2,3-dioxo- (9CI) (CA INDEX NAME)



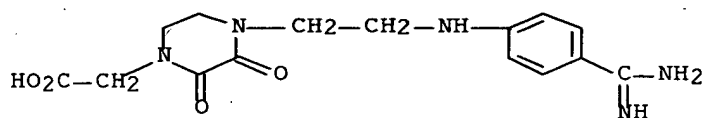
RN 179415-94-2 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-dioxo- $\alpha$ -phenyl- (9CI) (CA INDEX NAME)



RN 179416-01-4 CAPLUS

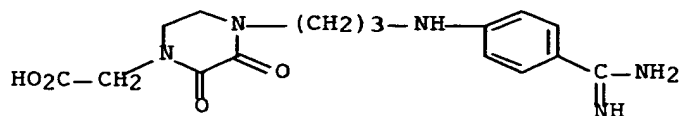
CN 1-Piperazineacetic acid, 4-[2-[[4-(aminoiminomethyl)phenyl]amino]ethyl]-2,3-dioxo-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 179416-02-5 CAPLUS

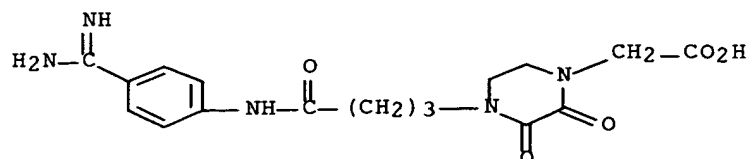
CN 1-Piperazineacetic acid, 4-[3-[[4-(aminoiminomethyl)phenyl]amino]propyl]-2,3-dioxo-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 179416-04-7 CAPLUS

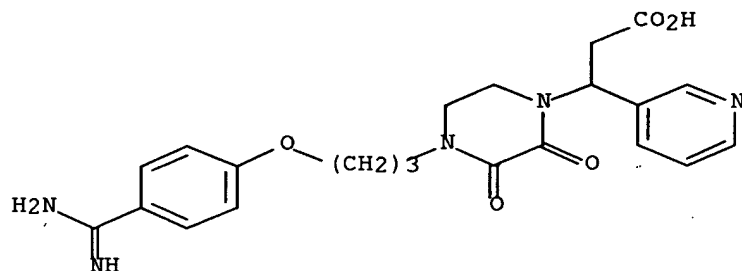
CN 1-Piperazineacetic acid, 4-[4-[[4-(aminoiminomethyl)phenyl]amino]-4-oxobutyl]-2,3-dioxo- (9CI) (CA INDEX NAME)



RN 179416-05-8 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-dioxo-β-3-pyridinyl-, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



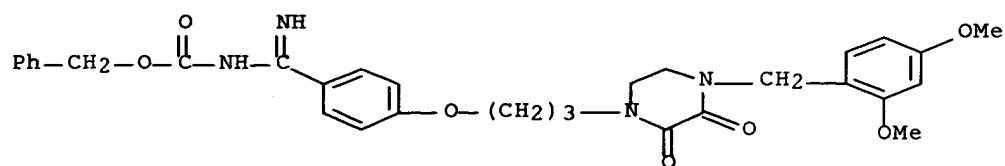
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 179416-62-7P 179416-63-8P 179416-64-9P  
 179416-65-0P 179416-66-1P 179416-67-2P  
 179416-68-3P 179416-69-4P 179416-70-7P  
 179416-71-8P 179416-72-9P 179416-73-0P  
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 179416-77-4P 179416-78-5P 179416-79-6P  
 179416-80-9P 179416-81-0P 179416-82-1P  
 179416-83-2P 179416-84-3P 179416-85-4P  
 179416-86-5P 179416-87-6P 179416-88-7P  
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 179416-95-6P 179416-96-7P 179416-97-8P  
 179416-98-9P 179416-99-0P 179417-00-6P  
 179417-01-7P 179417-02-8P 179417-03-9P  
 179417-07-3P 179417-17-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of diketopiperazine derivs. as platelet aggregation inhibitors)

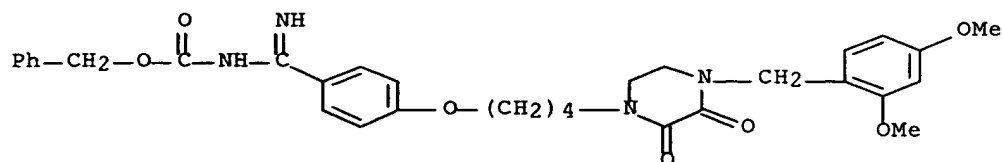
RN 179416-15-0 CAPLUS

CN Carbamic acid, [[4-[3-[4-[(2,4-dimethoxyphenyl)methyl]-2,3-dioxo-1-piperazinyl]propoxy]phenyl]iminomethyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



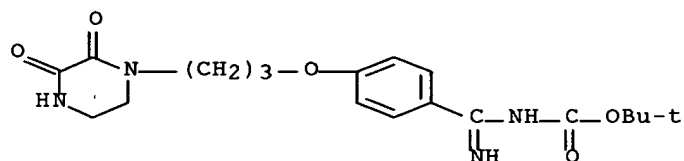
RN 179416-16-1 CAPLUS

CN Carbamic acid, [[4-[4-[4-[(2,4-dimethoxyphenyl)methyl]-2,3-dioxo-1-piperazinyl]butoxy]phenyl]iminomethyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



RN 179416-17-2 CAPLUS

CN Carbamic acid, [[4-[3-(2,3-dioxo-1-piperazinyl)propoxy]phenyl]iminomethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



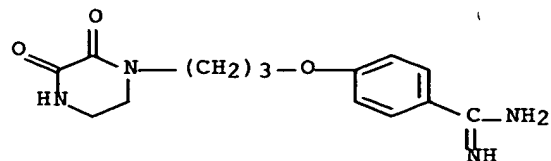
RN 179416-19-4 CAPLUS

CN Benzenecarboximidamide, 4-[3-(2,3-dioxo-1-piperazinyl)propoxy]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 179416-18-3

CMF C14 H18 N4 O3

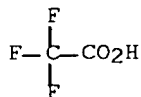




CM 2

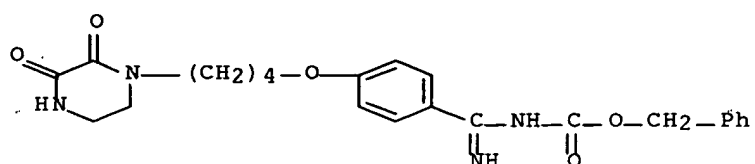
CRN 76-05-1

CMF C2 H F3 O2



RN 179416-20-7 CAPLUS

CN Carbamic acid, [[4-[4-(2,3-dioxo-1-piperazinyl)butoxy]phenyl]iminomethyl]-  
phenylmethyl ester (9CI) (CA INDEX NAME)



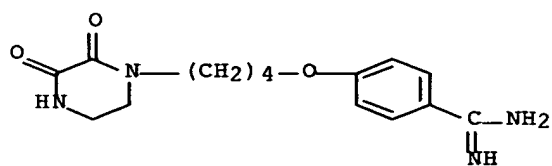
RN 179416-22-9 CAPLUS

CN Benzenecarboximidamide, 4-[4-(2,3-dioxo-1-piperazinyl)butoxy]-,  
mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 179416-21-8

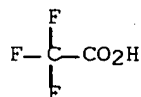
CMF C15 H20 N4 O3



CM 2

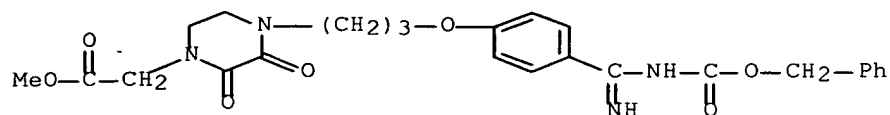
CRN 76-05-1

CMF C2 H F3 O2



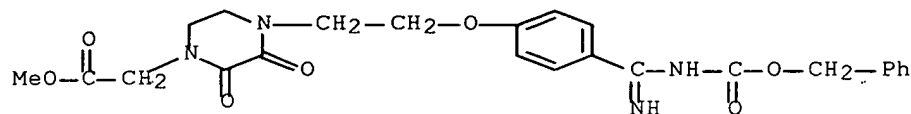
RN 179416-62-7 CAPLUS

CN 1-Piperazineacetic acid, 4-[3-[4-[imino[[ (phenylmethoxy) carbonyl] amino] methyl]phenoxy]propyl]-2,3-dioxo-, methyl ester (9CI) (CA INDEX NAME)



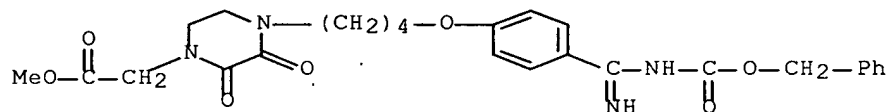
RN 179416-63-8 CAPLUS

CN 1-Piperazineacetic acid, 4-[2-[4-[imino[[ (phenylmethoxy) carbonyl] amino] methyl]phenoxy]ethyl]-2,3-dioxo-, methyl ester (9CI) (CA INDEX NAME)



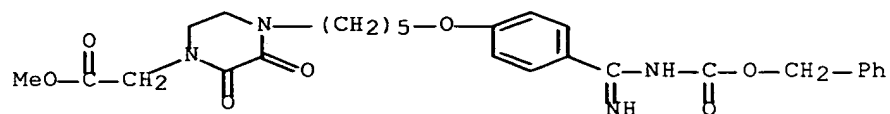
RN 179416-64-9 CAPLUS

CN 1-Piperazineacetic acid, 4-[4-[4-[imino[[ (phenylmethoxy) carbonyl] amino] methyl]phenoxy]butyl]-2,3-dioxo-, methyl ester (9CI) (CA INDEX NAME)



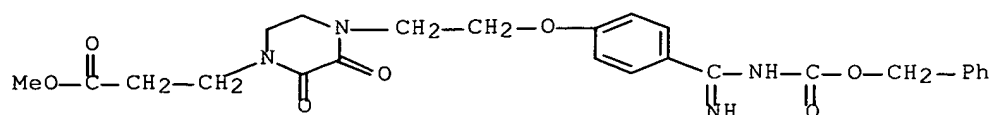
RN 179416-65-0 CAPLUS

CN 1-Piperazineacetic acid, 4-[5-[4-[imino[[ (phenylmethoxy) carbonyl] amino] methyl]phenoxy]pentyl]-2,3-dioxo-, methyl ester (9CI) (CA INDEX NAME)



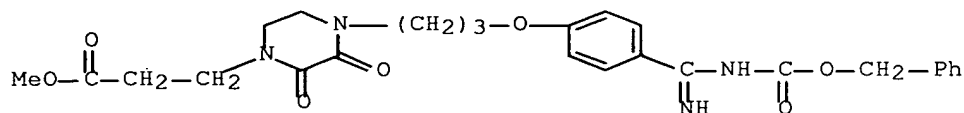
RN 179416-66-1 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[2-[4-[imino[[ (phenylmethoxy) carbonyl] amino] methyl]phenoxy]ethyl]-2,3-dioxo-, methyl ester (9CI) (CA INDEX NAME)



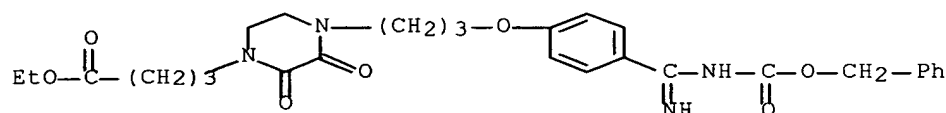
RN 179416-67-2 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[imino[[ (phenylmethoxy) carbonyl] amino] methyl]phenoxy]propyl]-2,3-dioxo-, methyl ester (9CI) (CA INDEX NAME)



RN 179416-68-3 CAPLUS

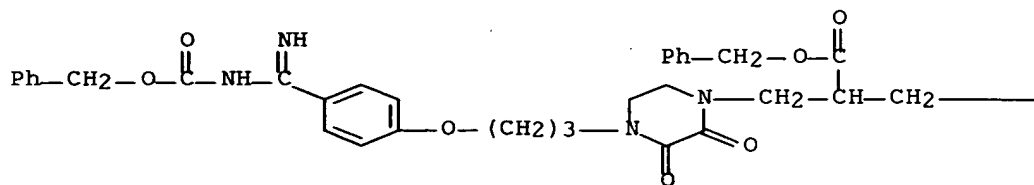
CN 1-Piperazinebutanoic acid, 4-[3-[4-[imino[[ (phenylmethoxy) carbonyl] amino] methyl]phenoxy]propyl]-2,3-dioxo-, ethyl ester (9CI) (CA INDEX NAME)



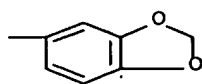
RN 179416-69-4 CAPLUS

CN 1-Piperazinepropanoic acid,  $\alpha$ -(1,3-benzodioxol-5-ylmethyl)-4-[3-[4-[imino[[ (phenylmethoxy) carbonyl] amino] methyl]phenoxy]propyl]-2,3-dioxo-, phenylmethyl ester (9CI) (CA INDEX NAME)

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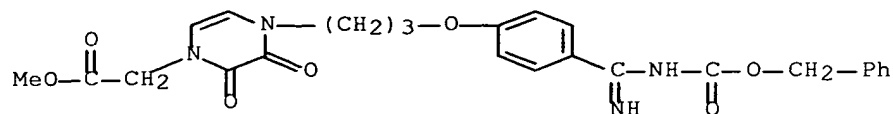


PAGE 1-B



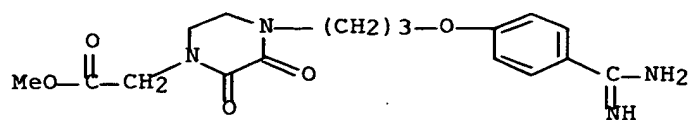
RN 179416-70-7 CAPLUS

CN 1(2H)-Pyrazineacetic acid, 3,4-dihydro-4-[3-[4-[imino[(phenylmethoxy)carbonyl]amino]methyl]phenoxy]propyl]-2,3-dioxo-, methyl ester (9CI) (CA INDEX NAME)



RN 179416-71-8 CAPLUS

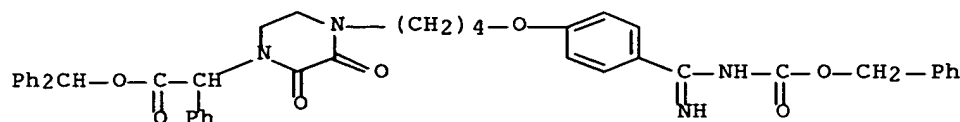
CN 1-Piperazineacetic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-dioxo-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

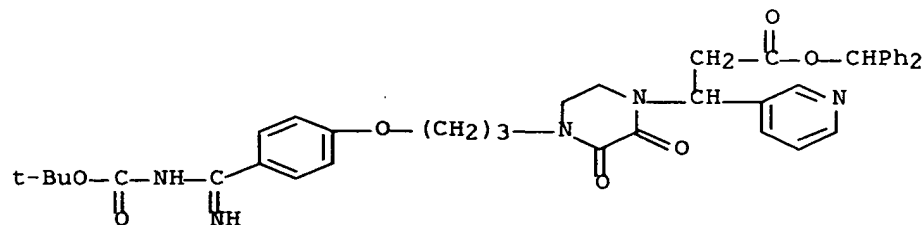
RN 179416-72-9 CAPLUS

CN 1-Piperazineacetic acid, 4-[4-[4-[imino[(phenylmethoxy)carbonyl]amino]methyl]phenoxy]butyl]-2,3-dioxo- $\alpha$ -phenyl-, diphenylmethyl ester (9CI) (CA INDEX NAME)



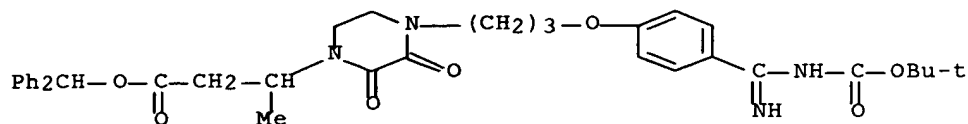
RN 179416-73-0 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-2,3-dioxo- $\beta$ -3-pyridinyl-, diphenylmethyl ester (9CI) (CA INDEX NAME)



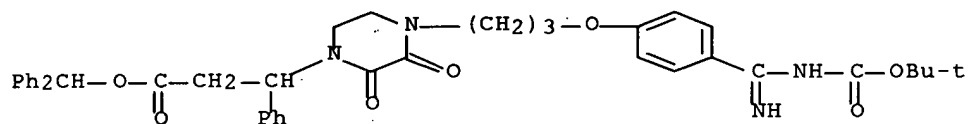
RN 179416-74-1 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-β-methyl-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



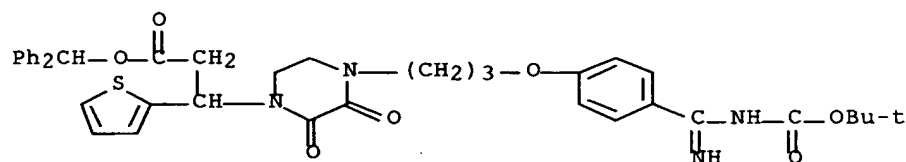
RN 179416-75-2 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-2,3-dioxo-β-phenyl-, diphenylmethyl ester (9CI) (CA INDEX NAME)



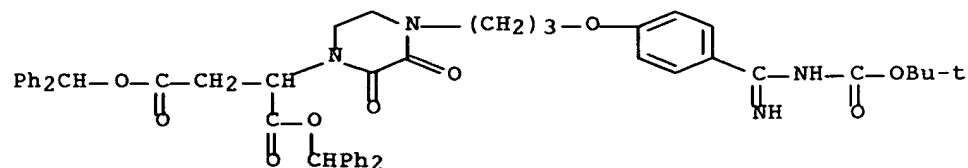
RN 179416-76-3 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-2,3-dioxo-β-2-thienyl-, diphenylmethyl ester (9CI) (CA INDEX NAME)



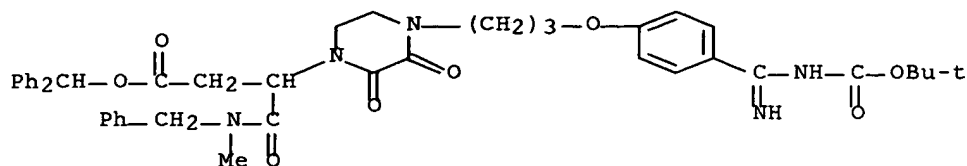
RN 179416-77-4 CAPLUS

CN Butanedioic acid, [4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-2,3-dioxo-1-piperazinyl]-, bis(diphenylmethyl) ester (9CI) (CA INDEX NAME)



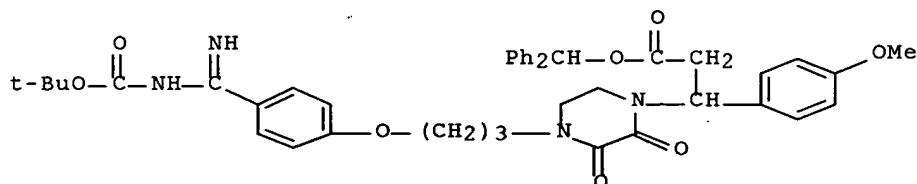
RN 179416-78-5 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl]phenoxy]propyl]-β-[methyl(phenylmethyl) amino] carbonyl]-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



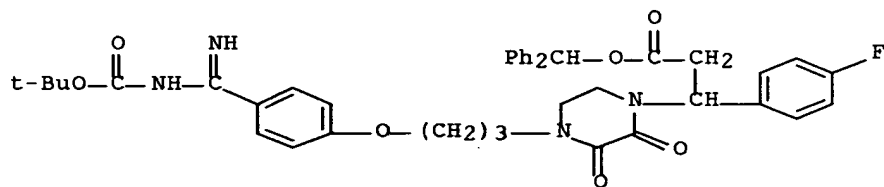
RN 179416-79-6 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl]phenoxy]propyl]-β-(4-methoxyphenyl)-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



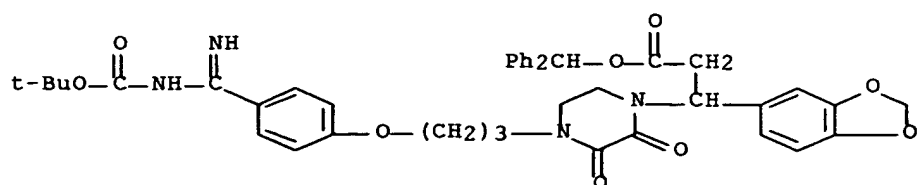
RN 179416-80-9 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl]phenoxy]propyl]-β-(4-fluorophenyl)-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



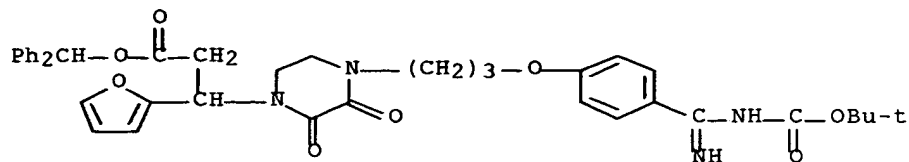
RN 179416-81-0 CAPLUS

CN 1-Piperazinepropanoic acid, β-1,3-benzodioxol-5-yl-4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl]phenoxy]propyl]-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



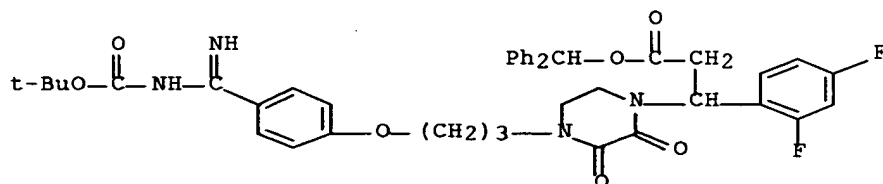
RN 179416-82-1 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-β-2-furanyl-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



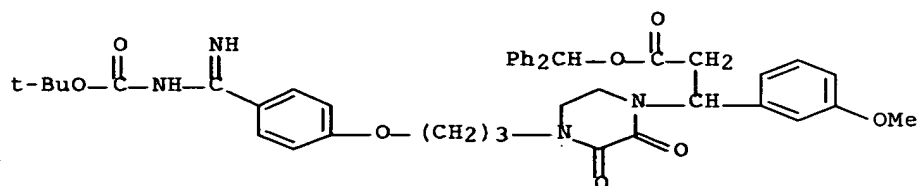
RN 179416-83-2 CAPLUS

CN 1-Piperazinepropanoic acid, β-(2,4-difluorophenyl)-4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



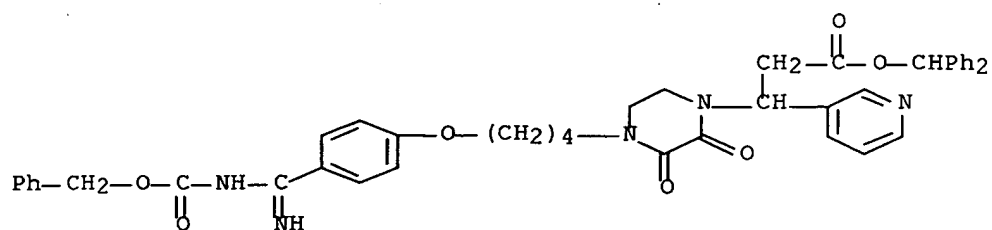
RN 179416-84-3 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-β-(3-methoxyphenyl)-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



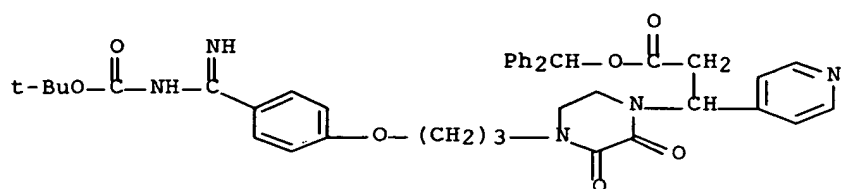
RN 179416-85-4 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[4-[4-[imino[(phenylmethoxy)carbonyl]amino]methyl]phenoxy]butyl]-2,3-dioxo-β-3-pyridinyl-, diphenylmethyl ester (9CI) (CA INDEX NAME)



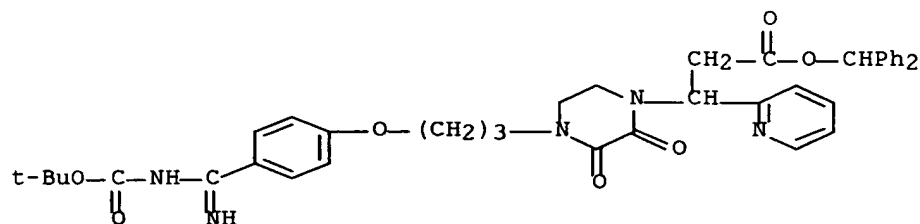
RN 179416-86-5 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl]phenoxy]propyl]-2,3-dioxo-β-4-pyridinyl-, diphenylmethyl ester (9CI) (CA INDEX NAME)



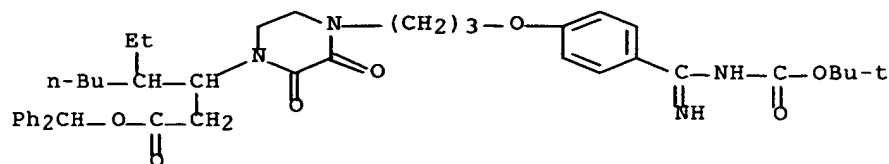
RN 179416-87-6 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl]phenoxy]propyl]-2,3-dioxo-β-2-pyridinyl-, diphenylmethyl ester (9CI) (CA INDEX NAME)



RN 179416-88-7 CAPLUS

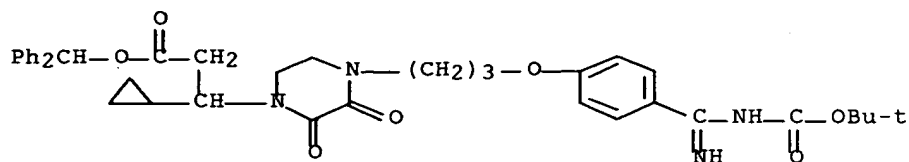
CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl]phenoxy]propyl]-β-(1-ethylpentyl)-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)





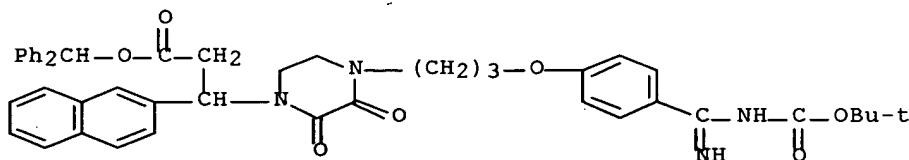
RN 179416-89-8 CAPLUS

CN 1-Piperazinepropanoic acid,  $\beta$ -cyclopropyl-4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl] phenoxy] propyl]-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



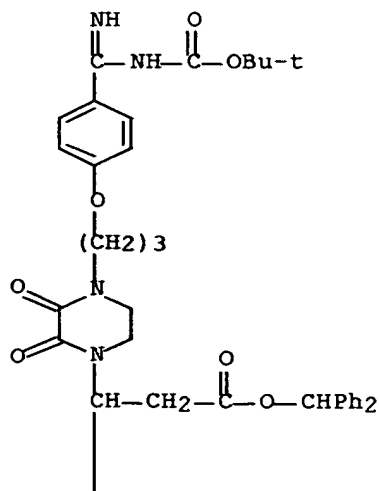
RN 179416-90-1 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl] phenoxy] propyl]- $\beta$ -2-naphthalenyl-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)

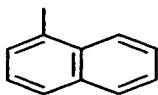


RN 179416-91-2 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl] phenoxy] propyl]- $\beta$ -1-naphthalenyl-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)

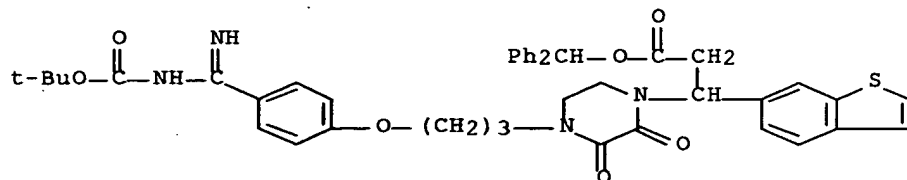


PAGE 1-A



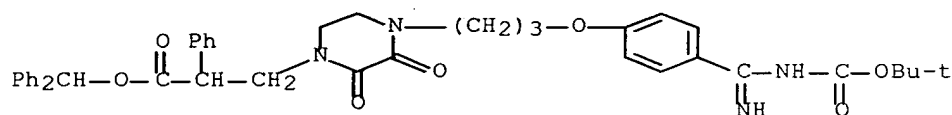
RN 179416-92-3 CAPLUS

CN 1-Piperazinepropanoic acid,  $\beta$ -benzo[b]thien-6-yl-4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



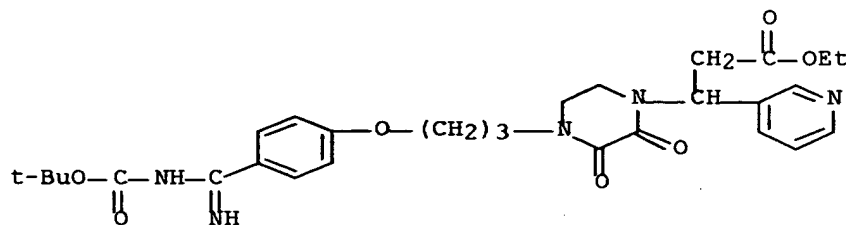
RN 179416-93-4 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-2,3-dioxo- $\alpha$ -phenyl-, diphenylmethyl ester (9CI) (CA INDEX NAME)



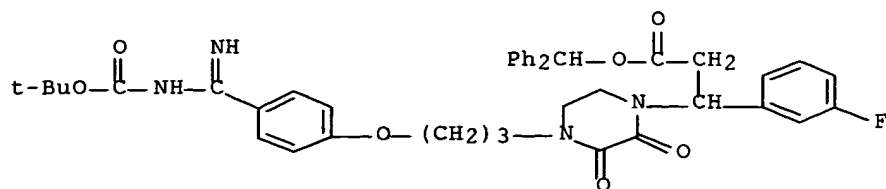
RN 179416-94-5 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-2,3-dioxo- $\beta$ -3-pyridinyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 179416-95-6 CAPLUS

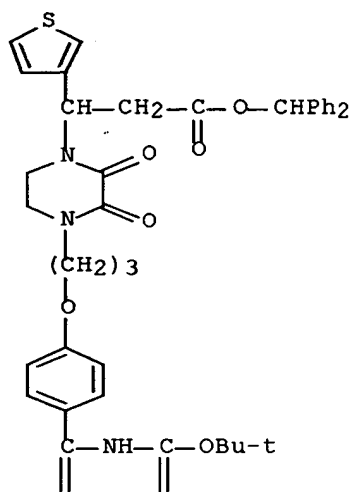
CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]- $\beta$ -(3-fluorophenyl)-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



RN 179416-96-7 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-2,3-dioxo-β-3-thienyl-, diphenylmethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

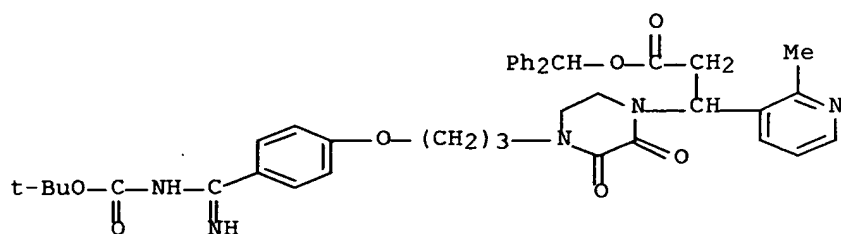


PAGE 2-A



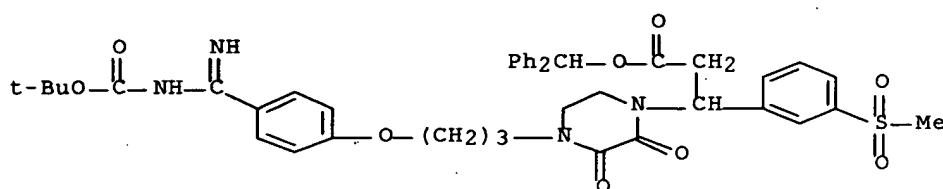
RN 179416-97-8 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-β-(2-methyl-3-pyridinyl)-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



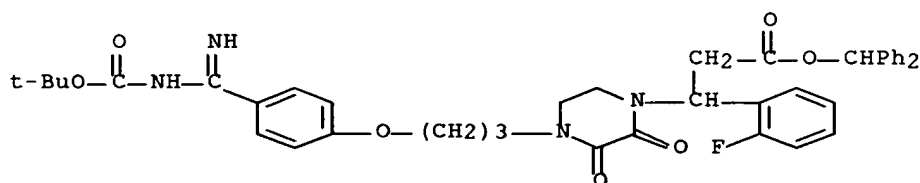
RN 179416-98-9 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl]phenoxy]propyl]-β-[3-(methylsulfonyl)phenyl]-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



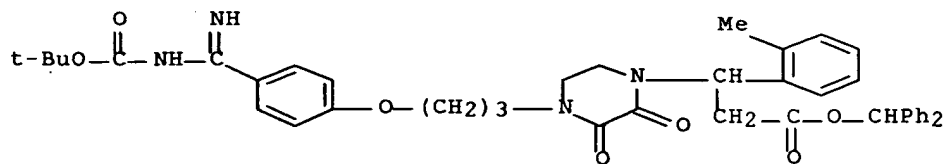
RN 179416-99-0 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl]phenoxy]propyl]-β-(2-fluorophenyl)-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



RN 179417-00-6 CAPLUS

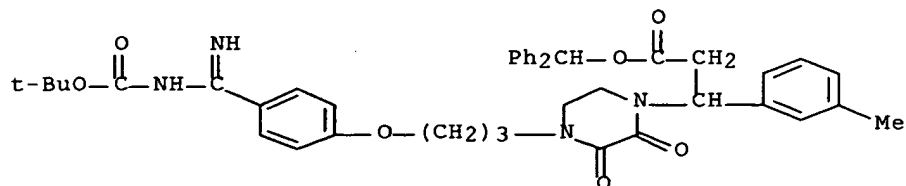
CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl]phenoxy]propyl]-β-(2-methylphenyl)-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



RN 179417-01-7 CAPLUS

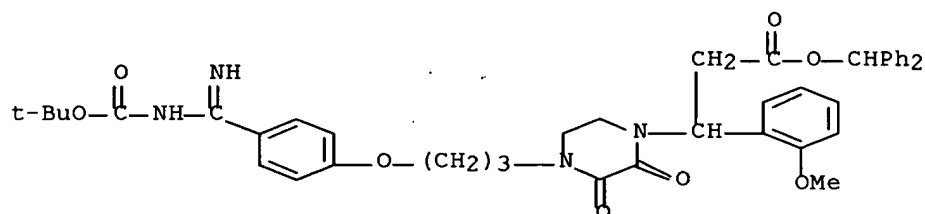
CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy) carbonyl] amino] iminomethyl]phenoxy]propyl]-β-(2-methylphenyl)-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)

iminomethyl]phenoxy]propyl]- $\beta$ -(3-methylphenyl)-2,3-dioxo-,  
diphenylmethyl ester (9CI) (CA INDEX NAME)



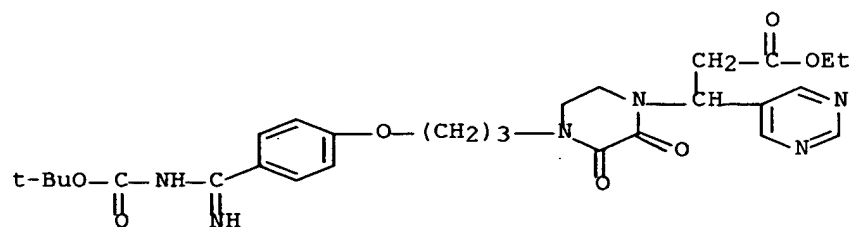
RN 179417-02-8 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]- $\beta$ -(2-methoxyphenyl)-2,3-dioxo-, diphenylmethyl ester (9CI) (CA INDEX NAME)



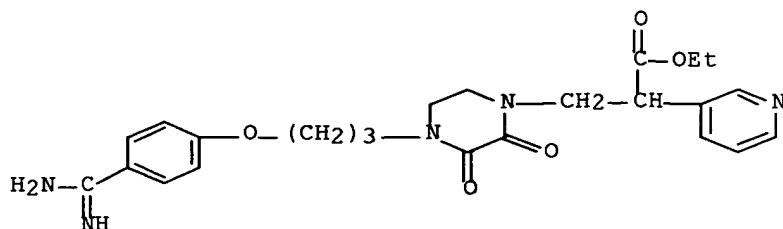
RN 179417-03-9 CAPLUS

CN 5-Pyrimidinepropanoic acid,  $\beta$ -[4-[3-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]iminomethyl]phenoxy]propyl]-2,3-dioxo-1-piperazinyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 179417-07-3 CAPLUS

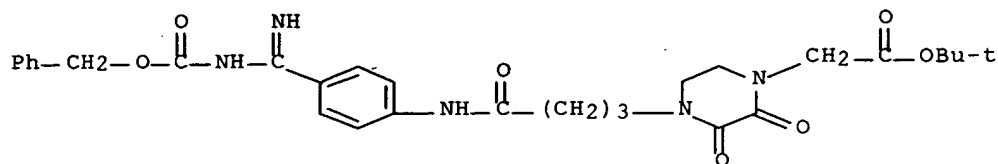
CN 1-Piperazinepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenoxy]propyl]-2,3-dioxo- $\alpha$ -3-pyridinyl-, ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 179417-17-5 CAPLUS

CN 1-Piperazineacetic acid, 4-[4-[[4-[imino[(phenylmethoxy)carbonyl]amino]methyl]phenyl]amino]-4-oxobutyl]-2,3-dioxo-, 1,1-dimethylethyl ester (9CI)  
(CA INDEX NAME)



L10 ANSWER 20 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1996:371857 CAPLUS Full-text

DN 125:67716

TI Sustained-release preparations for delivery of water-soluble  
physiologically active substances

IN Takada, Shigeyuki; Kurokawa, Tomofumi; Iwasa, Susumu

PA Takeda Chemical Industries, Ltd., Japan

SO Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 709085	A1	19960501	EP 1995-115568	19951002 <--
	EP 709085	B1	20010131		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
				JP 1994-236846	A 19940930
	JP 08151321	A	19960611	JP 1995-250818	19950928 <--
	JP 3790567	B2	20060628		
				JP 1994-236846	A1 19940930
	CA 2159552	A1	19960331	CA 1995-215952	19950929 <--
				JP 1994-236846	A 19940930
	EP 1022020	A2	20000726	EP 2000-106329	19951002 <--
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	EP 1022020	B1	20030122		
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				JP 1994-236846	A 19940930
				EP 1995-115568	A3 19951002
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AT 231390 T 20030215 JP 1994-236846 A 19940930  
 AT 2000-106329 19951002 <--  
 JP 1994-236846 A 19940930

## PATENT FAMILY INFORMATION:

FAN 1997:350556

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 765660	A2	19970402	EP 1996-115476	19960926
	EP 765660	A3	19980923		
	R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
				US 1995-535386	A 19950928
				JP 1996-77012	A 19960329
	US 6117455	A	20000912	US 1995-535386	19950928
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				JP 1996-77012	A 19960329
	CA 2186709	A1	19970329	CA 1996-2186709	19960927
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				JP 1996-77012	A 19960329

FAN 1999:147262

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5876756	A	19990302	US 1996-724498	19960930
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				JP 1994-236846	A 19940930
	JP 09315975	A	19971209	JP 1996-252544	19960925
				US 1995-535386	A 19950928
				JP 1996-77012	A 19960329
	CA 2186709	A1	19970329	CA 1996-2186709	19960927
				US 1995-535386	A 19950928
				JP 1996-77012	A 19960329

OS MARPAT 125:67716

AB A microcapsule comprising an amorphous water-sol. physiol. active substance and a polymer and a process for producing a microcapsule, which comprises dispersing an amorphous water-soluble physiol. active substance in a solution of a polymer in an organic solvent into an aqueous phase to prepare an emulsion and subjecting the emulsion to a rapid drying process, are described. The invention provides a microcapsule that has a high entrapment of a water-soluble drug and causes a small initial release. An antiplatelet aggregation agent S-4-[(4-amidinobenzoyl)glycyl]-3-methoxycarbonylmethyl-2-oxopiperazine-1-acetic acid in amorphous form was dispersed in a solution of glycolic acid-lactic acid copolymer. The drug in the dispersion was pulverized to microparticles in a 0.2% PVA solution containing 2.7% NaCl. The microcapsules were freeze-dried to obtain powdery microcapsules.

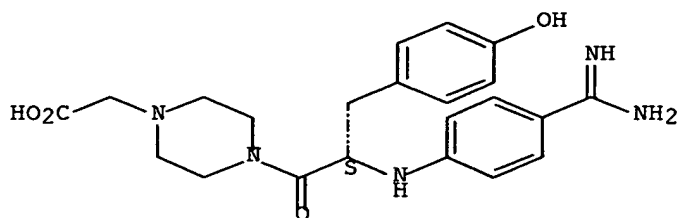
IT 177902-03-3

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (sustained-release microcapsules containing water-soluble physiol. active substances and polymers)

RN 177902-03-3 CAPLUS

CN 1-Piperazineacetic acid, 4-[2-[[4-(aminoiminomethyl)phenyl]amino]-3-(4-hydroxyphenyl)-1-oxopropyl]-, (S)- (9CI) (CA INDEX NAME)

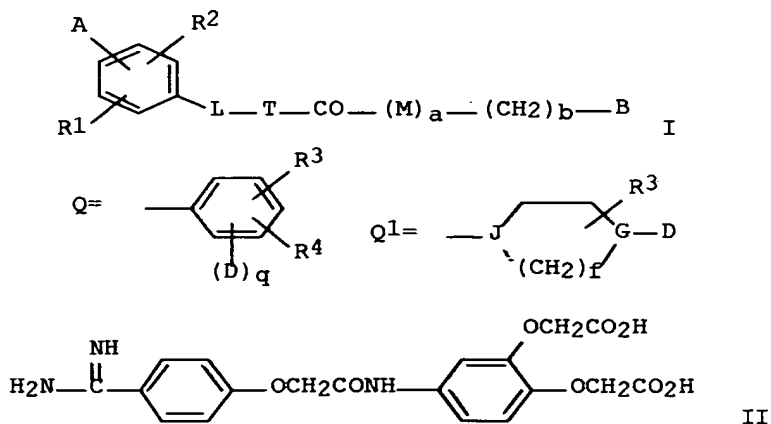
Absolute stereochemistry.



L10 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1996:259447 CAPLUS Full-text  
 DN 124:316765  
 TI Preparation of benzamidine derivatives as glycoprotein IIb/IIIa antagonists  
 IN Yoshida, Tomohiro; Ono, Shinichiro; Ashimori, Atsuyuki; Eda, Masahiro; Kosaka, Keigo; Mori, Fumio; Inoe, Yoshihisa; Imada, Mitsuaki; Ikegawa, Ruriko; Et, Al.  
 PA Green Cross Corp, Japan  
 SO Jpn. Kokai Tokkyo Koho, 25 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07330695	A	19951219	JP 1995-85532	19950411 <--
				JP 1995-85532	A 19950411
				JP 1994-72330	19940411

OS MARPAT 124:316765  
 GI



AB The amidinobenzene compds. [I; A = E-NHC(:NH), E-NHC(:NH)NH, E-NH(CH2)c; wherein E = H, amidino, guanidino, NH2-protecting group; c = 1,2,3; B = Q, Q1; wherein D = (Q2)p(CH2)r[CH(NH-E)]sCO2R5; wherein R5 = H, lower alkyl, cycloalkyl, aralkyl; Q2 = O, S, (un)substituted NH; R3, R4 = H, lower alkyl, halo, acyl, alkoxy; q = 1,2; p, s = 0,1; r = 0,1-3; provided that when p ≠ 0, at least one of r and s ≠ 0; J, G = CH, N; when G = N, then p = 0; f = 1-3; T



= (un)branched alkylene; L, M = O, S, (un)substituted NH; R1, R2 = H, lower alkyl, halo, acyl, alkoxy; a = 0,1; b = 0, 1-3; provided that when a = 0, then b = 0 and B = Q1; when a = 1 and b = 0, B = Q or Q1 (wherein J = CH)], which inhibit the thrombus of blood platelet and are useful for the treatment and prevention of thrombotic diseases, seizure, cardiac infarction, inflammation, and arteriosclerosis, are prepared Thus, 4-

(benzyloxycarbonylamidino)phenoxyacetic acid was condensed with di-tert-Bu [(4-amino-o-phenylene)dioxy]diacetate using 1-hydroxy-1H-benzotriazole and 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide in DMF at room temperature to give 77% di-tert-Bu [[4-[[4-(benzyloxycarbonylamidino)phenoxy]acetyl]amino]-o-phenylene]dioxy]diacetate, which was hydrogenolyzed in the presence of 10% Pd-C in THF under H atmosphere and then treated with CF3CO2H in CH2Cl2 at room temperature for 1.5 h to give the title compound (II) in 91% yield. II showed IC50 of 0.07  $\mu$ M for inhibiting the ADP-induced aggregation of human blood platelet.

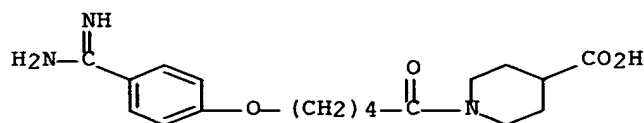
IT 175867-24-0P 175867-25-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzamidine derivs. as glycoprotein IIb/IIIa antagonists as antithrombotics and blood platelet aggregation inhibitors)

RN 175867-24-0 CAPLUS

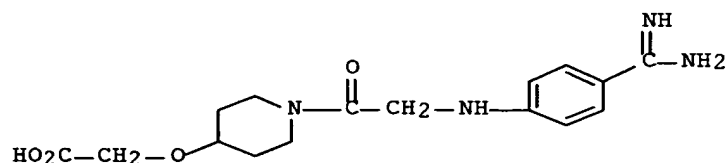
CN 4-Piperidinecarboxylic acid, 1-[5-[4-(aminoiminomethyl)phenoxy]-1-oxopentyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 175867-25-1 CAPLUS

CN Acetic acid, [[1-[[[4-(aminoiminomethyl)phenyl]amino]acetyl]-4-piperidinyloxy]- (9CI) (CA INDEX NAME)



IT 175867-46-6P 175867-47-7P 175867-49-9P

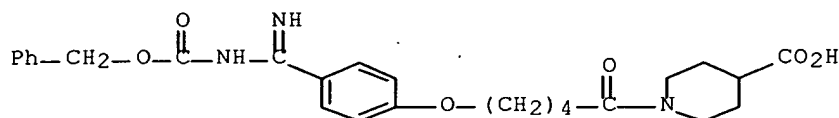
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of benzamidine derivs. as glycoprotein IIb/IIIa antagonists as antithrombotics and blood platelet aggregation inhibitors)

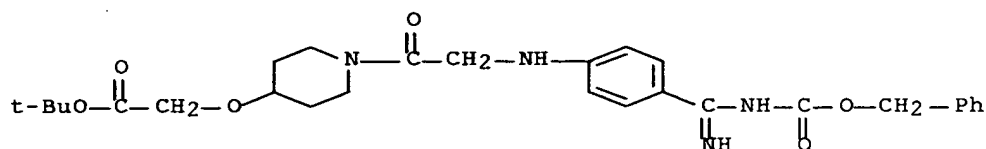
RN 175867-46-6 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[5-[4-[imino[(phenylmethoxy)carbonyl]amino]methyl]phenoxy]-1-oxopentyl]-, methyl ester (9CI) (CA INDEX NAME)

CN	4-Piperidinecarboxylic acid, 1-[5-[4-[imino[[ (phenylmethoxy) carbonyl] amino [methyl]phenoxy]-1-oxopentyl]- (9CI) (CA INDEX NAME)
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CN Acetic acid, [[1-[[[4-[imino[(phenylmethoxy)carbonyl]amino]methyl]phenyl]amino]acetyl]-4-piperidinyl]oxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



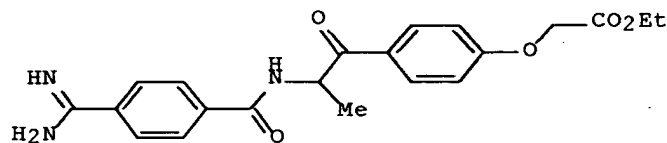
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OS MARPAT 123:313557  
GI



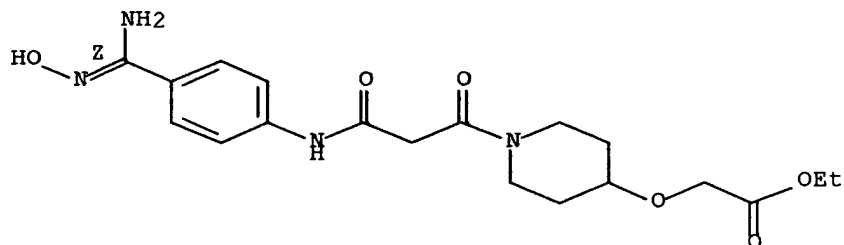
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AB LCOMZCH2COT [L = ACOZ1CH(G), ACH2Z2CH(G), ANHCOCH(G), etc.; A = aryl or cycloalkylalkyl groups Q1,Q2, etc.; D = (CH2)1-4, (CH2)0-30; G = H, amino acid side chain; M = 1,4-piperidinylenes, (un)substituted 1,4-phenylene; R = R1NHC(:NR2), R1NHCH2, etc.; R1,R2 = H, alkyl, alkoxy, etc.; R1R2 = atoms to complete a 5,5-dimethyl- or 5-oxo-4,5-dihydro-1,2,4-oxadiazol-3-yl group; T = NH2, OH, alkoxy, etc.; 1 of X,Y = CH and the other = CH, N, etc.; Z = O, CH2, NH, etc.; Z1 = (alkyl- or alkoxy-carbonyl-substituted) CH2, (alkyl)imino, etc.; Z2 = O, (acyl)imino; m,n = 0-5] were prepared Thus, (S)-4-(HO)C6H4COCHMeNHCO2CMe3 was etherified by BrCH2CO2Et and the deprotected product N-acylated by 4-[H2N(Me3CMe2SiON:)C]C6H4CO2H to give, after deprotection, title compound (S)-I which had ED50 of 0.2mg/kg orally in mice for production of plasma capable of inhibiting aggregation of human platelet-rich plasma.

IT 170095-05-3P 170095-07-5P 170095-08-6P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of phenoxyacetic acid derivs. and analogs as cell adhesion inhibitors)

RN 170095-05-3 CAPLUS  
CN Acetic acid, [[1-[3-[[4-[amino(hydroxyimino)methyl]phenyl]amino]-1,3-dioxopropyl]-4-piperidinyl]oxy]-, ethyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

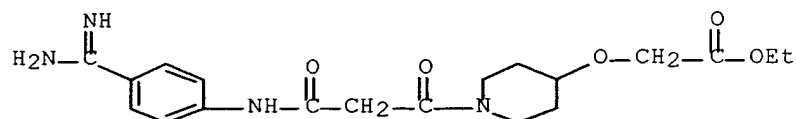


RN 170095-07-5 CAPLUS  
CN Acetic acid, [[1-[3-[[4-(aminoiminomethyl)phenyl]amino]-1,3-dioxopropyl]-4-piperidinyl]oxy]-, ethyl ester, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 170095-06-4

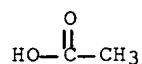
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CM 2

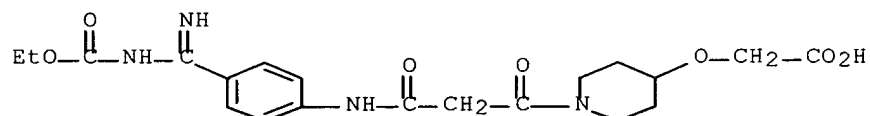
CRN 64-19-7

CMF C2 H4 O2



RN 170095-08-6 CAPLUS

CN Acetic acid, [[1-[3-[[4-[(ethoxycarbonyl)amino]iminomethyl]phenyl]amino]-1,3-dioxopropyl]-4-piperidinyl]oxy]- (9CI) (CA INDEX NAME)



IT 170096-94-3P 170096-95-4P

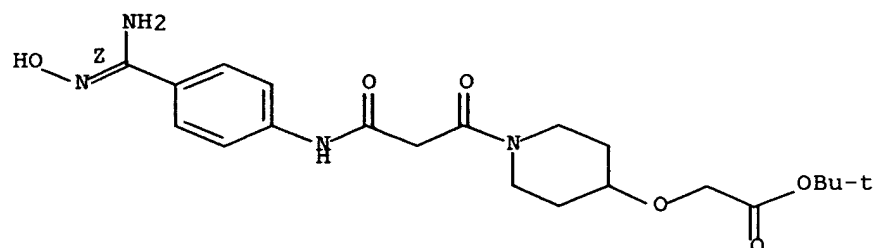
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of phenoxyacetic acid derivs. and analogs as cell adhesion inhibitors)

RN 170096-94-3 CAPLUS

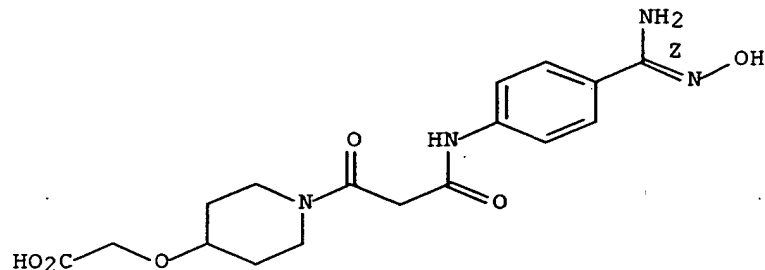
CN Acetic acid, [[1-[3-[[4-[amino(hydroxyimino)methyl]phenyl]amino]-1,3-dioxopropyl]-4-piperidinyl]oxy]-, 1,1-dimethylethyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



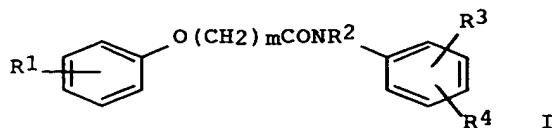
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 CN Acetic acid, [[1-[3-[[4-[amino(hydroxyimino)methyl]phenyl]amino]-1,3-dioxopropyl]-4-piperidinyloxy]-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L10 ANSWER 23 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1995:729952 CAPLUS Full-text  
 DN 123:285545  
 TI Amidino compounds as glycoprotein IIb/IIIa antagonists and pharmaceutical compositions containing them  
 IN Takasugi, Hisashi; Kato, Masayuki; Ookubo, Mitsuru; Takahashi, Fumie  
 PA Fujisawa Pharmaceutical Co, Japan  
 SO Jpn. Kokai Tokkyo Koho, 17 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07138221	A	19950530	JP 1993-307422	19931111 <--
				JP 1993-307422	19931111
OS	MARPAT 123:285545				
GI					



AB Amidine compds. I [R1 = (un)protected amidino; R2 = H, lower alkyl; R3 = H, acyl, acyl-lower alkoxy, (un)substituted aryl-lower alkyl, N-(aryl-lower alkyl)-N-(lower alkanoyl)aminoalkyl; R4 = acyl, acyl-lower alkoxy, (un)substituted acyl-lower alkyl, N-(aryl-lower alkyl)-N-(lower alkanoyl)-lower alkyl; m = 1-6] and their salts and pharmaceutical compns. containing I or their salts as active ingredients are claimed. I antagonize glycoprotein IIb/IIIa and inhibit aggregation of blood platelet, and are useful for treatment of thrombotic diseases, e.g. arteriosclerosis, ischemic heart disease, ischemic brain diseases, diabetic complications, restenosis after

PTCA, DIC, thrombocytopenia, inflammation, etc. I are also useful as cell adhesion inhibitors. A mixture of di-Me [4-[4-[N-(benzyloxycarbonyl)amidino]phenoxy]acetyl]amino]-1,2-phenylenedioxy]diacetate (1.0 g), Pd/C, HCl, H<sub>2</sub>O, and THF was autoclaved under H for 1 h to give 0.81 g di-Me [4-[(4-amidinophenoxy)acetyl]amino]-1,2-phenylenedioxy]diacetate hydrochloride. IC<sub>50</sub> value of this compound against ADP-induced platelet aggregation was  $6.0 \pm 10^{-7}$ M.

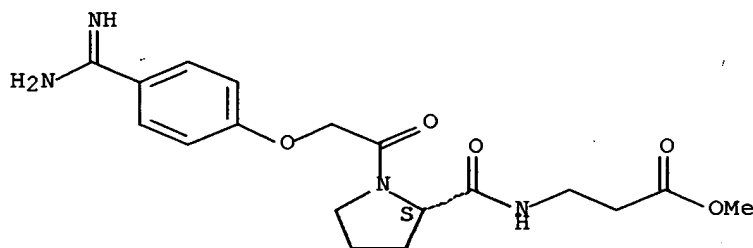
IT 169181-06-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
 ([4-(amidinophenoxy)alkanamido]benzenes as glycoprotein IIb/IIIa antagonists and blood platelet aggregation inhibitors for treatment of thrombotic diseases)

RN 169181-06-0 CAPLUS

CN  $\beta$ -Alanine, N-[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-L-prolyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

IT 169181-08-2P 169181-18-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 ([4-(amidinophenoxy)alkanamido]benzenes as glycoprotein IIb/IIIa antagonists and blood platelet aggregation inhibitors for treatment of thrombotic diseases)

RN 169181-08-2 CAPLUS

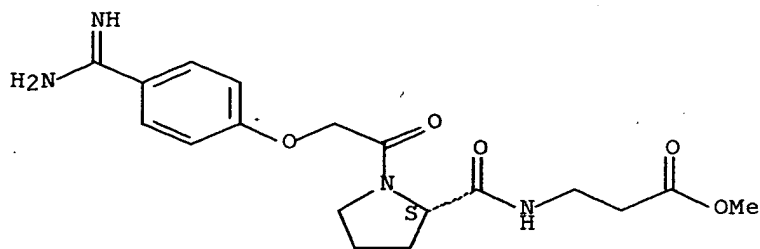
CN  $\beta$ -Alanine, N-[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-L-prolyl]-, methyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

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CRN 169181-07-1

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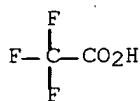
Absolute stereochemistry.



CM 2

CRN 76-05-1

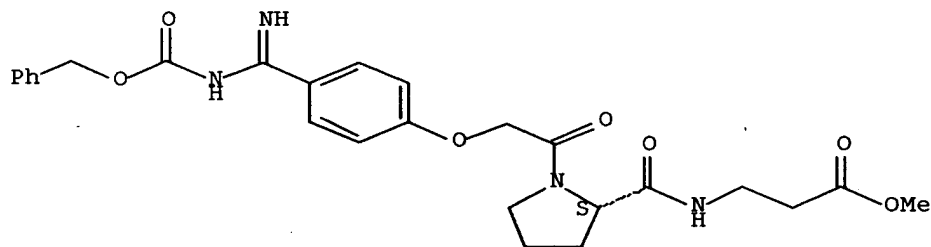
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RN 169181-18-4 CAPLUS

CN  $\beta$ -Alanine, N-[1-[[4-[imino[(phenylmethoxy)carbonyl]amino]methyl]phenoxy]acetyl]-L-prolyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 24 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:308716 CAPLUS Full-text

DN 122:81416

TI Heterocycle-containing amidine derivatives, their preparation, and use as LTB4 antagonists

IN Renth, Ernst Otto; Schromm, Kurt; Anderskewitz, Ralf; Birke, Franz; Fuegner, Armin; Heuer, Hubert

PA Boehringer Ingelheim International G.m.b.H., Germany

SO Ger. Offen., 31 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

PATENT NO.

KIND

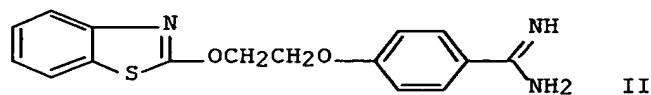
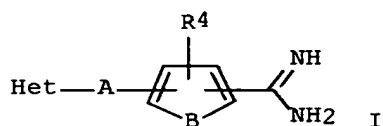
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APPLICATION NO.

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LV	11465	B	19961220	LV 1995-291	19950922 <--
				DE 1993-4309285	A 19930323
OS	MARPAT 122:81416				
GI					



AB Title compds. are disclosed, namely I [A = X1A1X2, X2A1X1, 1,4-piperazinediyl; A1 = linear or branched C2-6 divalent aliphatic group with optional double or triple bond, Y, CH2YCH2 (Y = cyclopentanediy1 or cyclohexanediy1), (un)substituted CH2C6H4CH2; X1 = O, S, SO, SO2, CH2, 1,4-piperazinediyl; X2 = O, S, CH2, OC6H4; B = CH:CH, CH:N, S, 1,2-C6H4; Het = (un)substituted mono-, di-, or tricyclic heterocyclyl; R4 = F, Cl, Br, iodo, (di)(alkyl)amino, OH, alkoxy, alkyl] and their stereoisomers and salts. The compds., being antagonists of leukotriene B4, are useful for treating inflammatory and allergic conditions such as asthma, ulcerative colitis, psoriasis, and gastropathy induced by nonsteroidal antiphlogistics. For example, Pinner reaction of 4-[2-(2- benzothiazolyloxy)ethoxy]benzonitrile, by treatment with

HCl and EtOH in CH<sub>2</sub>Cl<sub>2</sub> at -15°, and ammonolysis of the precipitated crystalline imidate with NH<sub>3</sub>-saturated EtOH at reflux, gave title compound II as the HCl salt. I had Ki of 1-20 nM in an LTB<sub>4</sub> receptor binding assay. Over 90 I are listed with m.p. data.

IT 160410-64-0P 160410-79-7P 160411-21-2P  
160411-22-3P 160411-23-4P 160411-25-6P  
160411-26-7P 160411-42-7P 160411-43-8P  
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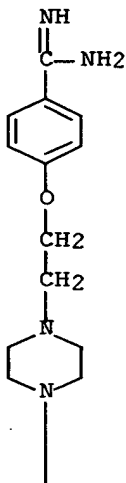
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of heterocycle-containing amidine derivs. as LTB<sub>4</sub> antagonists)

RN 160410-64-0 CAPLUS

CN Benzenecarboximidamide, 4-[2-[4-(2-thiazolyl)-1-piperazinyl]ethoxy]-, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



● HCl

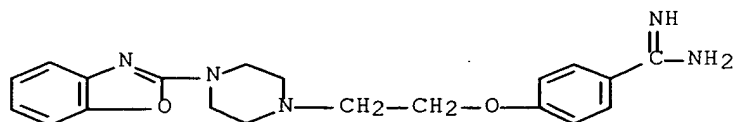
RN 160410-79-7 CAPLUS

CN Benzenecarboximidamide, 4-[2-[4-(2-benzoxazolyl)-1-piperazinyl]ethoxy]-, trimethanesulfonate (9CI) (CA INDEX NAME)

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CRN 160410-78-6

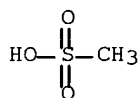
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CM 2

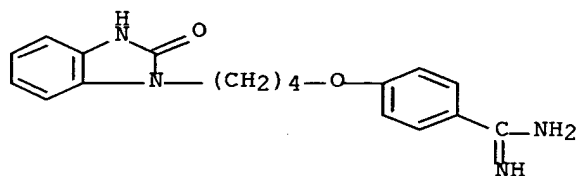
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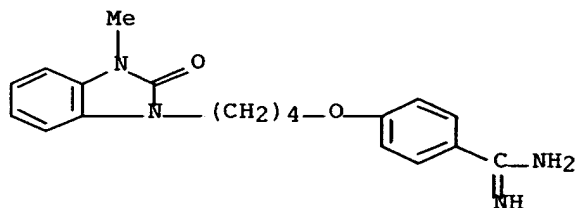
CN Benzenecarboximidamide, 4-[4-(2,3-dihydro-2-oxo-1H-benzimidazol-1-yl)butoxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 160411-22-3 CAPLUS

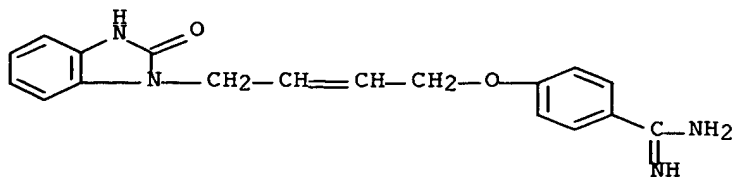
CN Benzenecarboximidamide, 4-[4-(2,3-dihydro-3-methyl-2-oxo-1H-benzimidazol-1-yl)butoxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 160411-23-4 CAPLUS

CN Benzenecarboximidamide, 4-[[4-(2,3-dihydro-2-oxo-1H-benzimidazol-1-yl)-2-butenyl]oxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

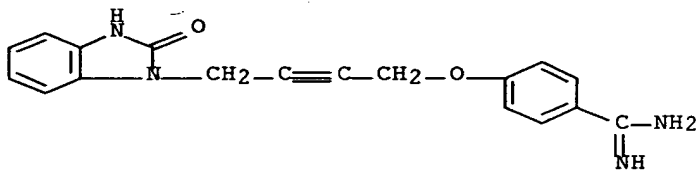
RN 160411-25-6 CAPLUS

CN Benzenecarboximidamide, 4-[[4-(2,3-dihydro-2-oxo-1H-benzimidazol-1-yl)-2-butynyl]oxy]-, monohydrochloride, compd. with 2-propanol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 160411-24-5

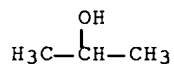
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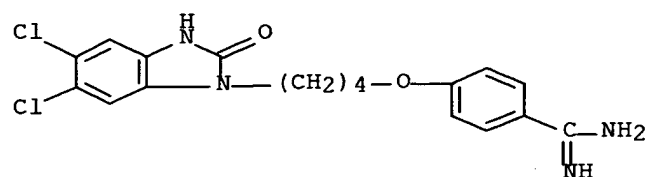
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CMF C3 H8 O



RN 160411-26-7 CAPLUS

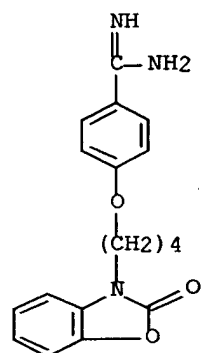
CN Benzenecarboximidamide, 4-[4-(5,6-dichloro-2,3-dihydro-2-oxo-1H-benzimidazol-1-yl)butoxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 160411-42-7 CAPLUS

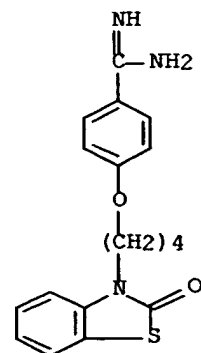
CN Benzenecarboximidamide, 4-[4-(2-oxo-3(2H)-benzoxazolyl)butoxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

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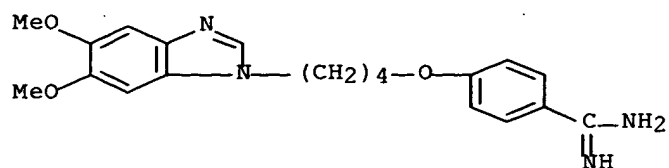
CN Benzenecarboximidamide, 4-[4-(2-oxo-3(2H)-benzothiazolyl)butoxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 160411-44-9 CAPLUS

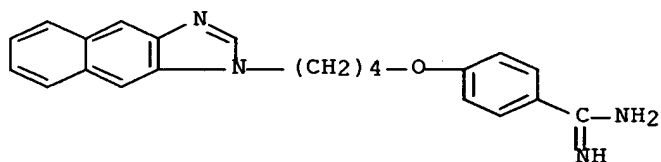
CN Benzenecarboximidamide, 4-[4-(5,6-dimethoxy-1H-benzimidazol-1-yl)butoxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 160411-45-0 CAPLUS

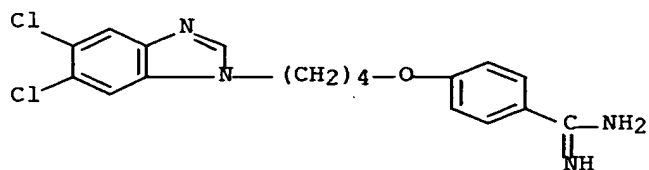
CN Benzenecarboximidamide, 4-[4-(1H-naphth[2,3-d]imidazol-1-yl)butoxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 160411-46-1 CAPLUS

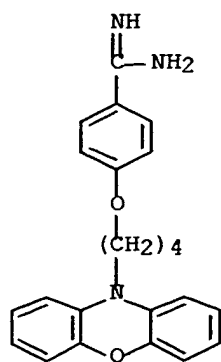
CN Benzenecarboximidamide, 4-[4-(5,6-dichloro-1H-benzimidazol-1-yl)butoxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 160411-47-2 CAPLUS

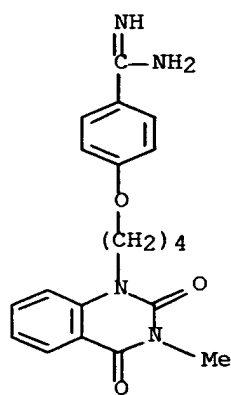
CN Benzenecarboximidamide, 4-[4-(10H-phenoxazin-10-yl)butoxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 160411-48-3 CAPLUS

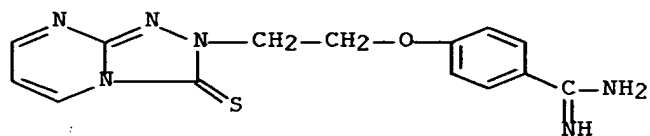
CN Benzenecarboximidamide, 4-[4-(3,4-dihydro-3-methyl-2,4-dioxo-1(2H)-quinazolinyl)butoxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 160411-58-5 CAPLUS

CN Benzenecarboximidamide, 4-[2-(3-thioxo-1,2,4-triazolo[4,3-a]pyrimidin-2(3H)-yl)ethoxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

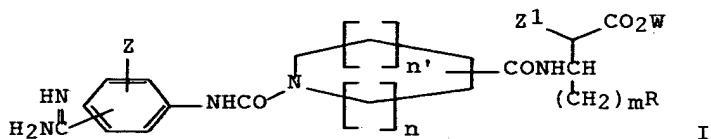
L10 ANSWER 25 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:680551 CAPLUS Full-text

DN 121:280551

TI Preparation of piperidylcarbonylamino derivatives as platelet aggregation inhibitors  
 IN Tjoeng, Foe S.; Toth, Mihaly V.  
 PA G.D. Searle and Co., USA; Monsanto Co.  
 SO PCT Int. Appl., 32 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9419341	A1	19940901	WO 1994-US513	19940125 <--
	W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 6268380	B1	20010731	US 1993-19923	A 19930219
	AU 9461236	A	19940914	US 1993-19923	19930219 <--
				AU 1994-61236	19940125 <--
				US 1993-19923	A 19930219
				WO 1994-US513	W 19940125
OS	MARPAT 121:280551				
GI					



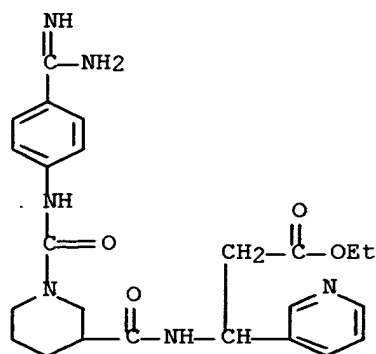
AB Title compds. I (R = H, alkyl, alkenyl, alkynyl, alicyclyl, arom., all optionally substituted, (substituted) mono- bicyclic heterocyclyl; W = H, alkyl, alkenyl, alkynyl, alicyclyl, aromatic all optionally substituted; Z, Z' = H, alkyl, alkoxy, halo, NC, SO<sub>2</sub>, HO; m = 0-6; n, n' = 0-3) or a pharmaceutically salt thereof, are prepared I (4-HN:CNH<sub>2</sub>, R = 3-pyridinyl, W = Et, Z, Z' = H, m = 0, n = n' = 1).2 CF<sub>3</sub>CO<sub>2</sub>H (preparation given) was treated with LiOH/MeOH to give I (4-HN:CHNH<sub>2</sub>, R = 3 pyridinyl, W = Z = Z' = H, M = 0, n = n' = 1) which in vitro platelet aggregation inhibition had an IC<sub>50</sub> of 8.5 + 10<sup>-7</sup>M.

IT 158982-97-9P 158982-98-0P 158982-99-1P  
 158983-00-7P 158983-01-8P 158983-02-9P  
 158983-03-0P 158983-04-1P 158983-05-2P  
 158983-06-3P 158983-07-4P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of piperidylcarbonylamino derivs. as platelet aggregation inhibitors)

RN 158982-97-9 CAPLUS

CN 3-Pyridinepropanoic acid, β-[[[1-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-piperidinyl]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)





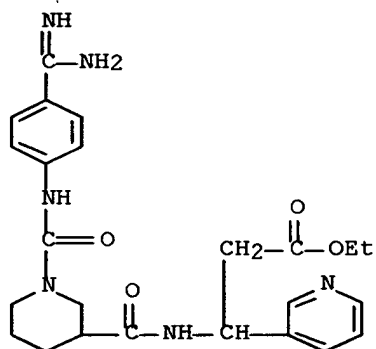
RN 158982-98-0 CAPLUS

CN 3-Pyridinepropanoic acid,  $\beta$ -[[[1-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-piperidiny]carbonyl]amino]-, ethyl ester, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 158982-97-9

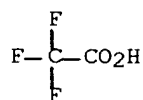
CMF C24 H30 N6 O4



CM 2

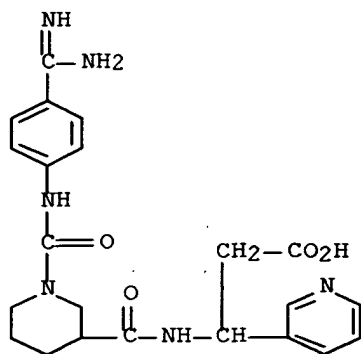
CRN 76-05-1

CMF C2 H F3 O2



RN 158982-99-1 CAPLUS

CN 3-Pyridinepropanoic acid,  $\beta$ -[[[1-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-piperidiny]carbonyl]amino]- (9CI) (CA INDEX NAME)



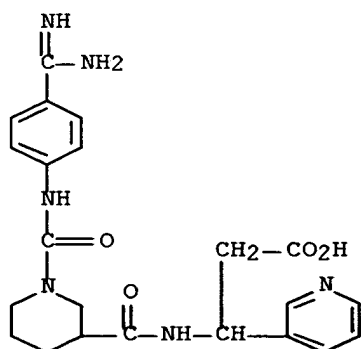
RN 158983-00-7 CAPLUS

CN 3-Pyridinepropanoic acid,  $\beta$ -[[[1-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-3-piperidiny]carbonyl]amino]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 158982-99-1

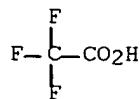
CMF C22 H26 N6 O4



CM 2

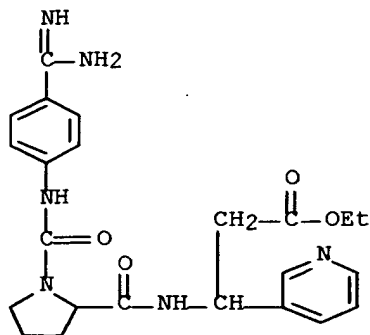
CRN 76-05-1

CMF C2 H F3 O2



RN 158983-01-8 CAPLUS

CN  $\beta$ -Alanine, N-[1-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-L-prolyl]-3-(3-pyridinyl)-, ethyl ester (9CI) (CA INDEX NAME)



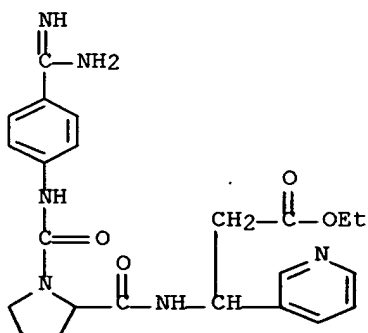
RN 158983-02-9 CAPLUS

CN  $\beta$ -Alanine, N-[1-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-L-prolyl]-3-(3-pyridinyl)-, ethyl ester, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 158983-01-8

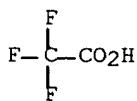
CMF C23 H28 N6 O4



CM 2

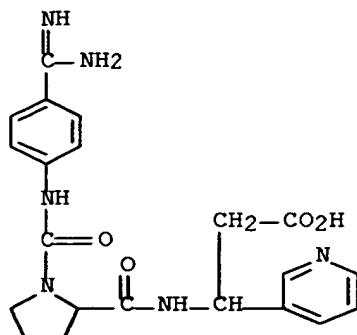
CRN 76-05-1

CMF C2 H F3 O2



RN 158983-03-0 CAPLUS

CN  $\beta$ -Alanine, N-[1-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-L-prolyl]-3-(3-pyridinyl)- (9CI) (CA INDEX NAME)



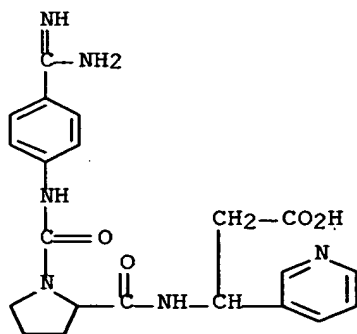
RN 158983-04-1 CAPLUS

CN  $\beta$ -Alanine, N-[1-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-L-prolyl]-3-(3-pyridinyl)-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 158983-03-0

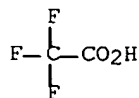
CMF C21 H24 N6 O4



CM 2

CRN 76-05-1

CMF C2 H F3 O2

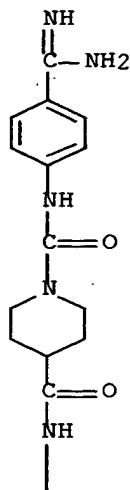


RN 158983-05-2 CAPLUS

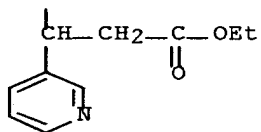
CN 3-Pyridinepropanoic acid,  $\beta$ -[[[1-[[[4-(aminoiminomethyl)phenyl]amino]

carbonyl]-4-piperidinyl]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

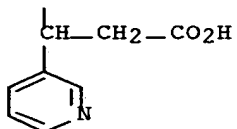
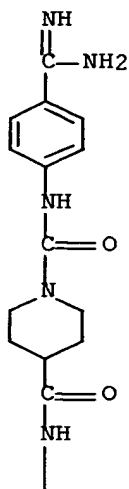


PAGE 2-A



RN 158983-06-3 CAPLUS

CN 3-Pyridinepropanoic acid,  $\beta$ -[[[1-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-4-piperidinyl]carbonyl]amino]- (9CI) (CA INDEX NAME)



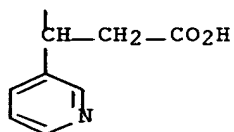
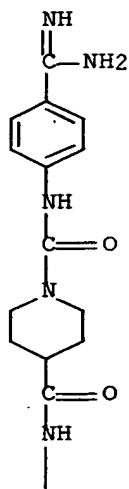
RN 158983-07-4 CAPLUS

CN 3-Pyridinepropanoic acid,  $\beta$ -[[[1-[[[4-(aminoiminomethyl)phenyl]amino]carbonyl]-4-piperidinyl]carbonyl]amino]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 158983-06-3

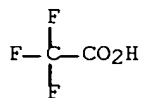
CMF C22 H26 N6 O4



CM 2

CRN 76-05-1

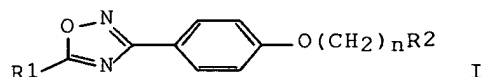
CMF C2 H F3 O2



L10 ANSWER 26 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1993:59712 CAPLUS Full-text  
 DN 118:59712  
 TI Preparation of 3-[(imidazoloalkoxy)phenyl]oxadiazoles and analogs as  
 monoamine oxidase B inhibitors  
 IN Toyofuku, Hatsunori; Matsumoto, Jun; Takahashi, Toshie; Ebie, Masakazu;  
 Sasada, Naomi; Mitsuzi, Agata; Shohei, Sawaki; Masayoshi, Goto  
 PA Wakamoto Pharmaceutical Co., Ltd., Japan  
 SO Eur. Pat. Appl., 23 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 504574	A1	19920923	EP 1992-101983	19920206 <--
	EP 504574	B1	19960228		
	R: DE, FR, GB, IT				
	JP 04295470	A	19921020	JP 1991-81198	A 19910322
	US 5356916	A	19941018	JP 1991-81198	19910322 <--
				US 1992-830298	19920131 <--
				JP 1991-81198	A 19910322
	CA 2060569	A1	19920923	CA 1992-2060569	19920203 <--
				JP 1991-81198	A 19910322
OS	MARPAT 118:59712				
GI					

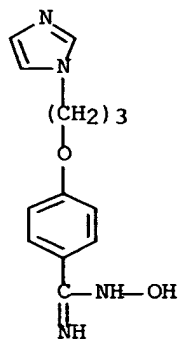


AB Title compds. [I; R1 = (cyclo)alkyl, haloalkyl, alkylamino, Ph; R2 = H, dialkylamino, (halo)phenyl, heteroaryl, etc.; n = 1-3] were prepared. Thus, imidazole was condensed with 4-(NC)C6H4O(CH2)3Cl and the product condensed with HONH2 to give 4-[R2(CH2)3O]C6H4C(:NOH)NH2 (R2 = imidazolo) which was cyclocondensed with EtCOCl to give I (R2 = imidazolo, n = 3) (II; R1 = Et). II (R1 = CC13) had IC50 of 0.03  $\mu$ mol/L against MAO-B in vitro.

IT 145259-36-5P 145259-37-6P 145259-38-7P  
 145259-39-8P 145259-42-3P 145259-43-4P  
 145259-44-5P 145259-45-6P 145259-46-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, in preparation of MAO-B inhibitors)

RN 145259-36-5 CAPLUS

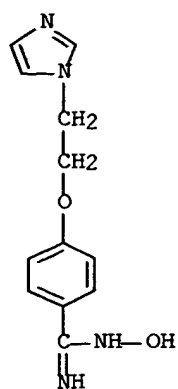
CN Benzenecarboximidamide, N-hydroxy-4-[3-(1H-imidazol-1-yl)propoxy]- (9CI)  
 (CA INDEX NAME)



RN 145259-37-6 CAPLUS

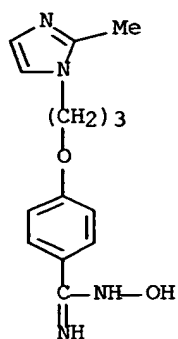
CN Benzenecarboximidamide, N-hydroxy-4-[2-(1H-imidazol-1-yl)ethoxy]- (9CI)  
 (CA INDEX NAME)





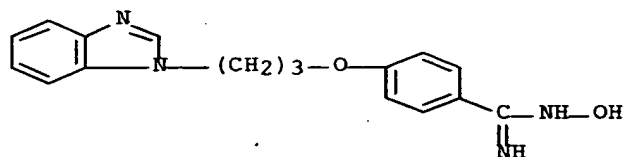
RN 145259-38-7 CAPLUS

CN Benzenecarboximidamide, N-hydroxy-4-[3-(2-methyl-1H-imidazol-1-yl)propoxy]-  
(9CI) (CA INDEX NAME)



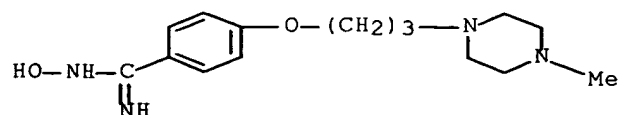
RN 145259-39-8 CAPLUS

CN Benzenecarboximidamide, 4-[3-(1H-benzimidazol-1-yl)propoxy]-N-hydroxy-  
(9CI) (CA INDEX NAME)



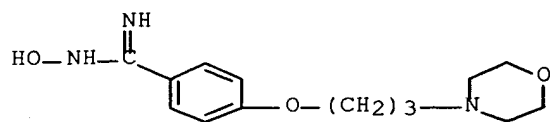
RN 145259-42-3 CAPLUS

CN Benzenecarboximidamide, N-hydroxy-4-[3-(4-methyl-1-piperazinyl)propoxy]-  
(9CI) (CA INDEX NAME)



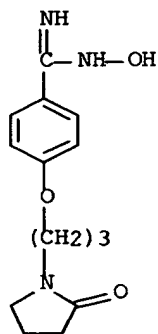
RN 145259-43-4 CAPLUS

CN Benzenecarboximidamide, N-hydroxy-4-[3-(4-morpholinyl)propoxy]- (9CI) (CA INDEX NAME)



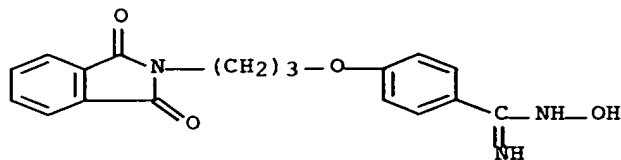
RN 145259-44-5 CAPLUS

CN Benzenecarboximidamide, N-hydroxy-4-[3-(2-oxo-1-pyrrolidinyl)propoxy]- (9CI) (CA INDEX NAME)



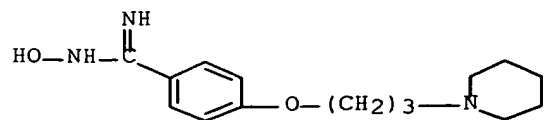
RN 145259-45-6 CAPLUS

CN Benzenecarboximidamide, 4-[3-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)propoxy]-N-hydroxy- (9CI) (CA INDEX NAME)



RN 145259-46-7 CAPLUS

CN Benzenecarboximidamide, N-hydroxy-4-[3-(1-piperidiny)propoxy]- (9CI) (CA INDEX NAME)



L10 ANSWER 27 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1984:502857 CAPLUS Full-text

DN 101:102857

TI Synthesis of affinity-label chelates: a novel synthetic method of coupling ethylenediaminetetraacetic acid to amine functional groups

AU Haner, M.; Eidson, A. F.; Darnall, D. W.; Birnbaum, E. R.

CS Dep. Chem., New Mexico State Univ., Las Cruces, NM, 88003, USA

SO Archives of Biochemistry and Biophysics (1984), 231(2), 477-86

CODEN: ABBIA4; ISSN: 0003-9861

DT Journal

LA English

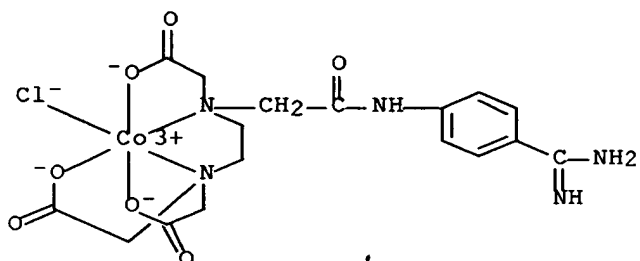
AB An affinity-label chelate for the enzyme trypsin was prepd. by a novel synthetic technique which takes advantage of the presence of a dangling carboxylate arm in  $[\text{CoLCl}]^{2-}$  ( $\text{H}_4\text{L} = \text{EDTA}$ ). The dangling carboxylate group was coupled to the amino group of p-aminobenzamidine, an effective inhibitor of trypsin activity, via the carbodiimide reaction to produce a trypsin affinity label at one end and a strong EDTA-like chelating agent at the other, coupled through an amide bond. The Co ion can be removed if desired by reduction with  $\text{Fe}^{2+} + \text{ascorbate}$ , and alternate metal ions inserted in its place. The reaction is general, and affinity labels which contain amino groups can be easily coupled via this procedure, allowing the introduction of a paramagnetic or fluorescent probe into a protein or nucleotide system. The same method was used to prepare a highly effective chelating gel which is capable of removing Ca and La ions from the binding protein parvalbumin.

IT 91514-62-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation, demetalation, acidity constant and hydrolysis of)

RN 91514-62-4 CAPLUS

CN Cobaltate(1-),  $[\text{N}-[2-[[4-(\text{aminoiminomethyl})\text{phenyl}]\text{amino}]-2\text{-oxoethyl}]-\text{N}-[2-[\text{bis}(\text{carboxymethyl})\text{amino}]\text{ethyl}]\text{glycinato}(3-)]\text{chloro-}$ , hydrogen, dihydrochloride, (OC-6-45)- (9CI) (CA INDEX NAME)



● 2 HCl

●  $\text{H}^+$

L10 ANSWER 28 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

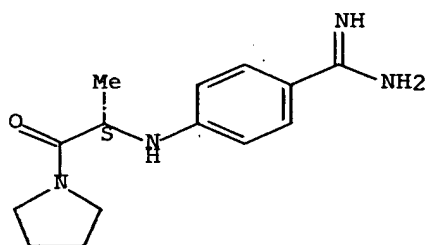
AN 1982:177302 CAPLUS Full-text

DN 96:177302

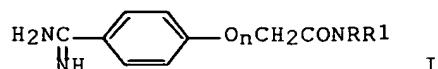
TI Use of synthetic inhibitors in coagulation-physiological assays with peptide substrates

AU Stuerzebecher, Joerg; Klessen, C.  
 CS Inst. Pharmakol. Toxikol., Med. Akad. Erfurt, Erfurt, DDR-5060, Ger. Dem. Rep.  
 SO Folia Haematologica (Leipzig) (1982), 109(1), 157-60  
 CODEN: FOHEAW; ISSN: 0323-4347  
 DT Journal  
 LA German  
 AB The use of thrombin-specific ( $N\alpha$ -substituted 4-amidinophenylalaninepyrrolidide) and thrombin-kallikrein-specific ( $N\alpha$ -substituted 3-amidinophenylalaninepiperidide) inhibitors increased the specificity of spectrophotometric detns. of coagulation factor X and coagulation factor Xa, resp. In the presence of the inhibitor, results of coagulation factor Xa determination correlated with those of partial thromboplastin time in various clin. situations.  
 IT 81607-61-6D, derivs.  
 RL: ANST (Analytical study)  
 (in blood coagulation factor X spectrophotometric determination)  
 RN 81607-61-6 CAPLUS  
 CN Pyrrolidine, 1-[2-[[4-(aminoiminomethyl)phenyl]amino]-1-oxopropyl]-, (S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 29 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1981:597192 CAPLUS Full-text  
 DN 95:197192  
 TI Synthetic inhibitors of serine proteinases. Part 27. Inhibition of amides by 4-amidinophenylacetic acid and 4-amidinophenoxyacetic acid  
 AU Walsmann, P.; Eppner, B.; Markwardt, F.; Stuerzebecher, J.; Wagner, G.  
 CS Inst. Pharmakol. Toxikol., Med. Akad. Erfurt, Erfurt, Ger. Dem. Rep.  
 SO Pharmazie (1981), 36(6), 446-7  
 CODEN: PHARAT; ISSN: 0031-7144  
 DT Journal  
 LA German  
 GI



AB Structure-activity relations of the title compds. I (R = H, Me, or Ph; R1 = Me, Ph, etc.; or R1 = pyrrolidinyl, morpholinyl, etc.; n = 0 or 1) with respect to plasmin [9001-90-5], thrombin [9002-04-4], and trypsin [9002-07-

7] inhibitory activities were studied. The antitrypsin and antithrombin activities of the primary aliphatic amides were generally similar, whereas the aromatic and the secondary amides had a higher affinity for thrombin with the exception of I (RR1 = morpholinyl; n = 0) [79294-74-9] and I (R and R1 = Me; n = 0) [79494-23-8]. With the primary amides, a comparison of the affinities of these competitive inhibitors for the resp. enzymes showed the following: Ki-trypsin < Ki-thrombin ≤ Ki-plasmin. With the secondary amides, the following comparison was observed: Ki-thrombin .simeq. Ki-trypsin < Ki-plasmin. Structure-activity relations for these results were discussed.

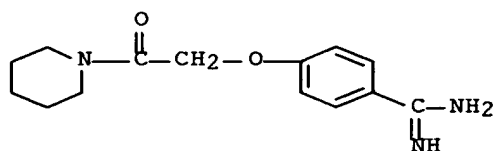
IT 79494-27-2

RL: BIOL (Biological study)

(plasmin and thrombin and trypsin inhibition by, structure in relation to)

RN 79494-27-2 CAPLUS

CN Piperidine, 1-[[4-(aminoiminomethyl)phenoxy]acetyl]- (9CI) (CA INDEX NAME)



L10 ANSWER 30 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1981:532444 CAPLUS Full-text

DN 95:132444

TI Synthesis of 4-amidinophenylacetic and 4-amidinophenoxyacetic amides

AU Wagner, G.; Eppner, Brigitte

CS Sekt. Biowiss., Karl-Marx-Univ. Leipzig, Leipzig, DDR-7010, Ger. Dem. Rep.

SO Pharmazie (1981), 36(5), 323-6

CODEN: PHARAT; ISSN: 0031-7144

DT Journal

LA German

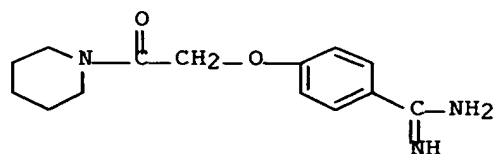
AB p-NCC6H4XCONRR1 (R = Me, Pr, Bu, Me2CH, α-naphthyl, Ph, R1 = H; R = R1 = Me, Ph; RR1N = morpholino, piperidino, pyrrolidino; X = CH2, OCH2) were treated with H2S and the p-H2NCSC6H4XCONRR1 methylated to give p-HN:C(SMe)C6H4XCONRR1.HI, which were treated with AcNH4 to give p-HN:C(NH2)C6H4XCONRR1.

IT 79149-06-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 79149-06-7 CAPLUS

CN Piperidine, 1-[[4-(aminoiminomethyl)phenoxy]acetyl]-, monohydriodide (9CI)  
(CA INDEX NAME)



● HI

L10 ANSWER 31 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1978:22426 CAPLUS Full-text  
 DN 88:22426  
 TI Pharmaceutical p-acyloximephenoxyacetic acids and their derivatives  
 IN Mieville, Andre  
 PA Laboratoires Fournier SA, Switz.  
 SO Ger. Offen., 20 pp. Division of Ger. Offen. 2,003,430.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN.CNT 2

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			US 1973-326188	A2 19730124
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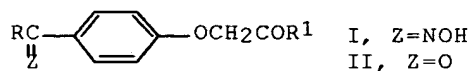
## PATENT FAMILY INFORMATION:

FAN 1971:3409

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	NL 7001424	A	19700804	NL 1970-1424	19700131
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	US 3914286	A	19751021	US 1970-8071	19700202
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	US 3907792	A	19750923	US 1973-326188	19730124

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SE 7504490	A	19750418	SE 1975-4490		19750418
SE 414497	B	19800804			
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US 4058552	A	19771115	US 1975-600127		19750729
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OS MARPAT 88:22426  
GI



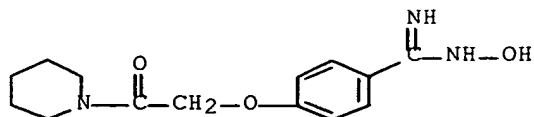
AB The title compds. I (R = H, Me, CH<sub>2</sub>Br; R<sub>1</sub> = piperidino, morpholino, 4-methylpiperidino, 4-(chlorophenyl-1-piperazinyl, hexamethyleneimino, Et<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>NH, OH, OEt) were prepared in 50-70% yields by refluxing the corresponding carbonyl compds. II with H<sub>2</sub>NOH.HCl and Na<sub>2</sub>CO<sub>3</sub> in EtOH. II (R<sub>1</sub> as above) were prepared from the esters II (R<sub>1</sub> = OMe or OEt) or acid chlorides II (R<sub>1</sub> = Cl). I (R = H, Me; R<sub>1</sub> = NHOH) were prepared in 50-5% yields by refluxing NH<sub>2</sub>OH.HCl and Na in EtOH with 1 g-mol I (R = H, Me; R<sub>1</sub> = OEt) or 0.5 g-mol II (R's the same). I are antitussives. Thus, I (R = Me, R<sub>1</sub> = morpholino) had ED<sub>50</sub> □ LD<sub>50</sub> of 0.040 (mouse), whereas that for codeine was 0.136.

IT 29936-90-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

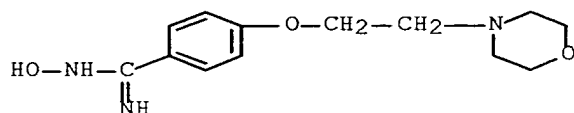
RN 29936-90-1 CAPLUS

CN Piperidine, 1-[[4-[(hydroxyamino)iminomethyl]phenoxy]acetyl]- (9CI) (CA INDEX NAME)





L10 ANSWER 32 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1973:505148 CAPLUS Full-text  
 DN 79:105148  
 TI Syntheses of nitrogen heterocyclic compounds. III. Hypocholesterolemic 1,2,4-oxadiazole derivatives  
 AU Yurugi, Shojiro; Miyake, Akio; Fushimi, Tomiyoshi; Imamiya, Eiko; Matsumura, Haruki; Imai, Yoshio  
 CS Chem. Res. Lab., Takeda Chem. Ind., Ltd., Osaka, Japan  
 SO Chemical & Pharmaceutical Bulletin (1973), 21(8), 1641-50  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DT Journal  
 LA English  
 OS CASREACT 79:105148  
 GI For diagram(s), see printed CA Issue.  
 AB 1,2,4-Oxadiazoles I, R = Ph, 3-pyridyl, p-Et2N(CH2)2OC6H4 etc.; R1 = NH(CH2)3OH, NHNHC(:NH)NH2, piperidino, OCH2Ph, etc., hypocholesterolemic, were prepared by, e.g., cyclizing RC(:NOH)NH2 with CCl3COCl or (CCl3CO)2O to give I (R1 = CCl3) followed by reaction with H2N(CH2)3OH, H2NHNHC(:NH)NH2, piperidine, PhCH2OH, etc.  
 IT 49773-15-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 49773-15-1 CAPLUS  
 CN Benzenecarboximidamide, N-hydroxy-4-[2-(4-morpholinyl)ethoxy]- (9CI) (CA INDEX NAME)



L10 ANSWER 33 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1971:3409 CAPLUS Full-text  
 DN 74:3409  
 TI Phenoxyalkylcarboxylic acid derivatives  
 IN Mieville, Andre  
 PA Orchimed S. A.  
 SO Ger. Offen., 29 pp.  
 CODEN: GWXXBX

DT Patent  
 LA German

FAN.CNT 2

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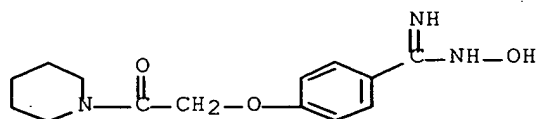
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FAN 1978:22426

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NL 7900613	A	19790531	NL 1979-613		19790125
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			CH 1969-13022	A	19690828

GI For diagram(s), see printed CA Issue.  
 AB The title, neurotropic and antiinflammatory compds. (I) were prep'd. from a phenol and an  $\omega$ -halo acid or ester. Thus, 4-PrCOC6H4OH and ClCMe2CO2H was refluxed 8 hr in aqueous NaOH to give 65% I (X = O, R = Pr, R1 = R2 = Me, R3 = H, n = 0). Approx. 25 analogs of I were prepared including I (R = R1 = R2 = H, X = :NOH, R3 = morpholino, n = 0) and I (R = R1 = R2 = H, X = :NOH, R3 = NHOH, n = 0).  
 IT 29936-90-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 29936-90-1 CAPLUS  
 CN Piperidine, 1-[[4-[(hydroxyamino)iminomethyl]phenoxy]acetyl]- (9CI) (CA INDEX NAME)



L10 ANSWER 34 OF 34 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1961:143947 CAPLUS Full-text  
 DN 55:143947  
 OREF 55:27217a-f  
 TI Amidines  
 IN Sharp, Thomas Marvel; Solomon, William  
 PA Wellcome Foundation Ltd.  
 DT Patent  
 LA Unavailable  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 868552		19610517	GB	<--
AB	<p>The title compds. and their acid addn. salts, active against amoebiasis in exptl. animals, are prepared by standard reactions. Thus, 1 mole Na salt of p-HOC6- H4CN in 2250 ml. alc. and 350 ml. H2O is treated at reflux 6 hrs. with 1.99 equivs. 1,10-dibromodecane (I). After removal of most of the alc., water is added and the product extracted with 3 l. Et2O. The extract is dried (Na2SO4), the Et2O evaporated, the residue distilled to vapor temperature 200°/2.5 mm. to remove unreacted I, and the crude p-(10-bromodecyloxy)benzonitrile (201 g.) in 500 cc. alc. treated with 100 cc. Et2NH at reflux 6 hrs. The resultant p-(10- diethylaminodecyloxy)benzonitrile (II) is separated from nonbasic impurities by conventional acid-base ether extraction techniques and recrystd. as the HCl salt from acetone. Dry II.HCl (95 g.) is dissolved in 100 cc. absolute EtOH, the solution saturated with HCl at 20°, after removal of volatiles the residue dissolved in 100 cc. EtOH at 5°, mixed with 400 cc absolute EtOH saturated with dry NH3 at 20°, cooled to 5°, the mixture resatd. with dry NH3, kept at 20° 65 hrs., nearly all volatile material removed at 20°, the residue treated with 2.5 l. H2O containing excess NaOH, extracted with 1 l. Et2O, the extract dried, and the ether removed to give p-(10-diethylaminodecyloxy)benzamidine; monosulfate m. 224-9° (EtOH-H2O). Similarly are prepared substituted benzamidines (substituent and m.p. of sulfate given): p-Et2N(CH2)6O, 249°; p-Et2N(CH2)7O, 226-31°; p-Et2N(CH2)8O, 221-7°; p-Et2N(CH2)9O, 231-3°; p-Et2N(CH2)12O, 224-7°; p-EtNH(CH2)7O, 271°; p-PrNH- (CH2)7O, 279-87°; p-Pr2N(CH2)7O, .simeq., 200°; p-BuNH(CH2)7O, 280-7°; p-iso-BuNH(CH2)7O, 280-5°; p-(7-piperidinoheptyloxy), 270-3°; p-(7-</p>				

morpholinoheptyloxy), 229-33°; p-Me2N(CH2)8O, 215-20°; p-CH2:CHCH2NH- (CH2)8O, 218-23°; p-Bu2N(CH2)8O, 160-5°; p-(8-piperazinoctyloxy), 241-53°; p-[8-(N'-benzhydrylpiperazino)octyloxy], indefinite; 3-Me, 4-Et2N(CH2)10O, 215-19°; 3-Me, 4-Et2N(CH2)9O, 223-7°; 3-Cl, 4-Et2N(CH2)8O, 199202°; 3-Cl, 4-Et2N(CH2)9O, 210-13°; 3-Br, 4-Et2N- (CH2)10O, 179-85°; 3-MeO, 4-Et2N(CH2)7O, 262-70°; 3-MeO, 4-Et2N(CH2)8O, 219-22°; 3-MeO, 4-Et2N(CH2)9O, 223-8°; 3-MeO, 4-Et2N(CH2)10O, 227-33°; p-Me2N(CH2)10O, 186-92°; p-EtNH(CH2)10O, 194-200°; p-Pr2N(CH2)10O, 181-6°; p-(10-pyrrolidinodecyloxy), 215-28°; p-(10-morpholinodecyloxy), 160-78°. Also prepared were 6(7-diethylaminoheptyloxy)-2-naphthamide sulfate, m. 258-62°, 6-(10-diethylaminodecyloxy)-2-naphthamide sulfate, m. 232-4°, and 3,5-dimethyl-4-(10-diethylaminodecyloxy)-benzamide di-HCl salt m. 160-5° (acetone).

IT 110273-67-1P, Benzamide, p-(7-morpholinoheptyloxy)-, sulfate  
 113011-71-5P, Benzamide, p-(10-morpholinodecyloxy)-, sulfate  
 113011-73-7P, Benzamide, p-[10-(1-pyrrolidinyl)decyloxy]-, sulfate  
 115145-37-4P, Benzamide, p-[8-(1-piperazinyl)octyloxy]-, sulfate  
 115163-83-2P, Benzamide, p-(7-piperidinoheptyloxy)-, sulfate  
 122360-23-0P, Benzamide, p-[8-(4-diphenylmethyl-1-piperazinyl)octyloxy]-, sulfate

RL: PREP (Preparation)  
 (preparation of)

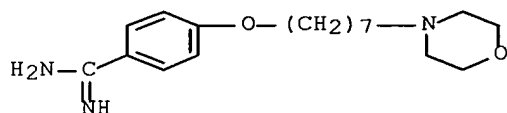
RN 110273-67-1 CAPLUS

CN Benzamide, p-(7-morpholinoheptyloxy)-, sulfate (6CI) (CA INDEX NAME)

CM 1

CRN 110273-66-0

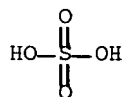
CMF C18 H29 N3 O2



CM 2

CRN 7664-93-9

CMF H2 O4 S



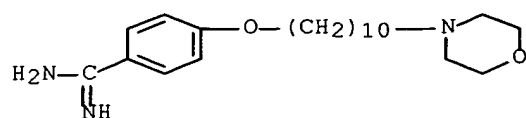
RN 113011-71-5 CAPLUS

CN Benzamide, p-(10-morpholinodecyloxy)-, sulfate (6CI) (CA INDEX NAME)

CM 1

CRN 113011-70-4

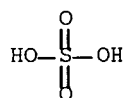
CMF C21 H35 N3 O2



CM 2

CRN 7664-93-9

CMF H2 O4 S



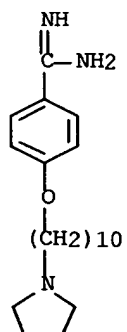
RN 113011-73-7 CAPLUS

CN Benzamidine, p-[10-(1-pyrrolidinyl)decyloxy]-, sulfate (6CI) (CA INDEX NAME)

CM 1

CRN 113011-72-6

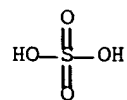
CMF C21 H35 N3 O



CM 2

CRN 7664-93-9

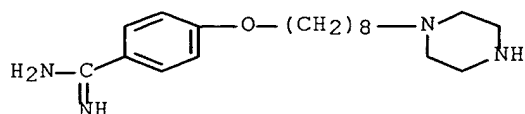
CMF H2 O4 S



RN 115145-37-4 CAPLUS  
 CN Benzamidine, p-[8-(1-piperazinyl)octyloxy]-, sulfate (6CI) (CA INDEX NAME)

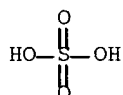
CM 1

CRN 115145-36-3  
 CMF C19 H32 N4 O



CM 2

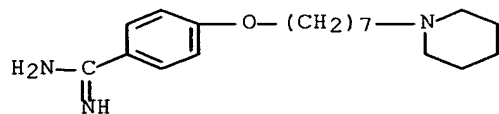
CRN 7664-93-9  
 CMF H2 O4 S



RN 115163-83-2 CAPLUS  
 CN Benzamidine, p-(7-piperidinoheptyloxy)-, sulfate (6CI) (CA INDEX NAME)

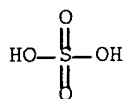
CM 1

CRN 115163-82-1  
 CMF C19 H31 N3 O



CM 2

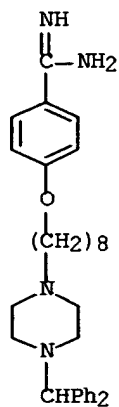
CRN 7664-93-9  
 CMF H2 O4 S



RN 122360-23-0 CAPLUS  
 CN Benzamidine, p-[8-(4-diphenylmethyl-1-piperazinyl)octyloxy]-, sulfate  
 (6CI) (CA INDEX NAME)

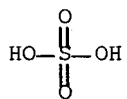
CM 1

CRN 122360-22-9  
 CMF C32 H42 N4 O



CM 2

CRN 7664-93-9  
 CMF H2 O4 S



=> s l9 not l10  
 L11 15 L9 NOT L10

=> dis l11 1-15 bib abs

L11 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2006:1096937 CAPLUS Full-text  
 DN 145:410627  
 TI Pharmaceutical composition and method using antifungal agent in



combination  
 IN Nomura, Nobuhiko; Nishikawa, Hiroshi; Fujino, Noritomo  
 PA Toyama Chemical Co., Ltd., Japan  
 SO PCT Int. Appl., 39pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006109642	A1	20061019	WO 2006-JP307204	20060405
	W:				
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	RW:				
	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRAI	JP 2005-110784	A	20050407		

OS MARPAT 145:410627

AB A pharmaceutical compn. contg. one or more antifungal agents selected from an arylamidine derivative, such as 4,4'-[1,4-piperidinediylbis(3,1-propanediylloxy)]bis-benzenecarboximidamide (I), an azole antifungal agent, a polyene antifungal agent, a candin antifungal agent, and a fluoropyrimidine antifungal agent, has a strong antifungal activity and is useful for the treatment of fungal infection. A method for using them in combination is useful as an excellent therapeutic method for fungal infection. Also disclosed is a pharmaceutical composition containing the arylamidine derivative and an immunosuppressing agent, which has a strong antifungal activity and is useful for the treatment of fungal infection and a skin disease, such as atopic dermatitis. For example, a combination of I and fluconazole showed synergistic inhibition against *Cryptococcus neoformans* in vitro.

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2006:791023 CAPLUS Full-text  
 DN 145:230423  
 TI Preparation of benzamidine compounds as FXa inhibitors  
 IN Takayanagi, Masaru; Takehana, Shunji; Otani, Kayo; Saitou, Yuki  
 PA Ajinomoto Co., Inc., Japan  
 SO PCT Int. Appl., 87pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006083003	A1	20060810	WO 2006-JP302202	20060202
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,				

SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,  
 VN, YU, ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM

PRAI JP 2005-26949 A 20050202

OS MARPAT 145:230423

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [ring A, B = aryl, heteroaryl, cycloalkyl, etc.; T = H, hydroxyl, alkoxy, etc.; U = H, (un)substituted alkyl, carboxyl, etc.; V = H, halo, hydroxyl, etc.; W = heteroaryl, Q1, etc.; R = alkyl, m = 1-3; X = optionally substituted nitrogen atom by alkyl, O, S, methylene; n = 1-3] and their pharmaceutically acceptable salts were prepared. For example, reaction of 2-bromoethyl 4-[imino(pyrrolidin-1-yl)methyl]benzoate trifluoroacetic acid salt with 4-(benzyloxy)-3-hydroxybenzamidinium trifluoroacetic acid salt, e.g., prepared from 3,4-dihydroxybenzonitrile in 2 steps, followed by Pd/C catalyzed debenzoylation under H<sub>2</sub> atmosphere afforded compound II in 26% yield. In blood-coagulation factor X (FXa) inhibition assays, the pIC<sub>50</sub> value of compound II was 8.5. Compds. I are claimed useful as anticoagulants.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:700008 CAPLUS Full-text

DN 145:167552

TI Preparation of phenylglycinamide derivatives useful as anticoagulants

IN Zhang, Xiaojun; Priestley, Eldon Scott; Nirschl, Alexandra A.; Zou, Yan

PA Bristol-Myers Squibb Company, USA

SO PCT Int. Appl., 301 pp.

CODEN: PIXXD2

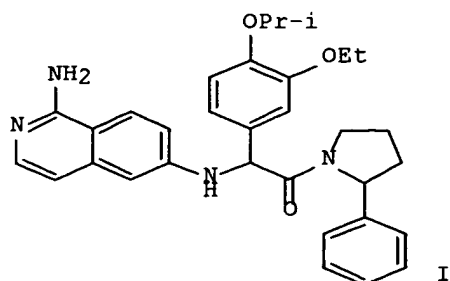
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006076246	A2	20060720	WO 2006-US571	20060109
	WO 2006076246	A3	20060928		
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	RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	US 2006166997	A1	20060727	US 2006-328479	20060109
PRAI	US 2005-642751P	P	20050110		
OS	MARPAT 145:167552				

GI



AB The invention relates to phenylglycinamide derivs. or analogs Z-W-CH(Y)CONRCRR1R2 [NRCR is a 4-8-membered heterocycle which may have addnl. heteroatoms N, O or S; Y is (un)substituted Ph or pyridyl; W is NH or O; Z is (un)substituted mono- or diazanaphthyl, 4-(aminomethyl)- or 4-(aminoiminomethyl)phenyl or 2- or 3-(aminomethyl)- or 2- or 3-(aminoiminomethyl)-2- or -3-pyridyl; R1 is H, CN, CO2H or ester, carbamoyl, tetrazolyl, or (un)substituted alkyl; R2 is (un)substituted Ph, naphthyl, or heterocyclyl] that inhibit serine proteases, especially factor VIIa, and which are useful for treating thromboembolic disorders. Thus, compound I.CF3CO2H was prepared as a mixture of diastereoisomers by condensation of 3-ethoxy-4-isopropoxyphenylboronic acid and 2-[[[1-bis(1,1-dimethylethoxycarbonyl)amino]isoquinolin-6-ylamino]-2-(3-ethoxy-4-isopropoxyphenyl)acetic acid (preps. given) with glyoxylic acid, followed by coupling with 2-phenylpyrrolidine and deprotection.

L11 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:633352 CAPLUS Full-text

DN 145:211044

TI Preparation of 1,2,4-oxadiazole derivatives as antiviral agents for treatment of picornavirus infection

IN Zhu, Chongquan; Wu, Yanjun; Zhang, Yihua; Cao, Qingxian

PA Jiangsu Wuzhong Suyao Medicine Development Co., Ltd., Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 25 pp.

CODEN: CNXXEV

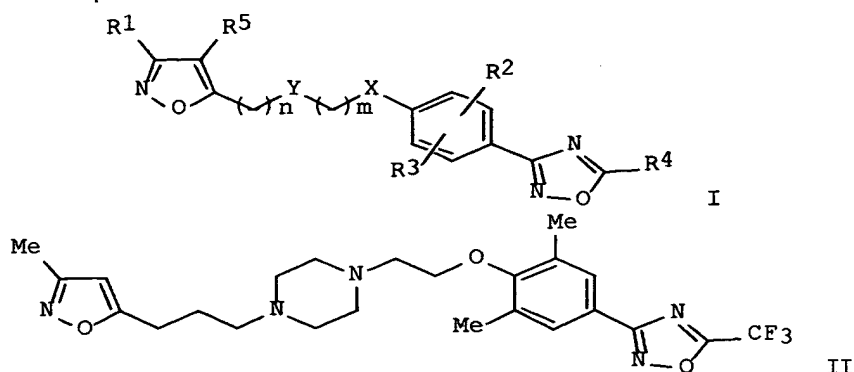
DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1687060	A	20051026	CN 2005-10039135	20050428
PRAI	CN 2005-10039135		20050428		

GI



AB The title 1,2,4-oxadiazole derivs. I [wherein R1 = alkyl, alkoxy, hydroxy, cycloalkyl, carboxyl, etc.; R2 and R3 = independently hydrogen, alkyl, alkoxy, halogen, cyano, trifluoromethyl, or nitro; R4 = alkyl, alkoxy, hydroxy, cycloalkyl, etc.; R5 = hydrogen, halogen, or alkyl; X = O or S; Y = O, S, or NR6; R6 = alkyl, acyl, sulfonyl, pyridinyl, piperidinyl, etc.; n = 0-5; and m = 0-5] or pharmaceutically acceptable salts thereof are prepared as antiviral agents for treatment of picornavirus infection. For example, the compound II•2HCl was prepared in a multi-step synthesis in moderate yield. Some of the title compds. showed good antiviral activities.

L11 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:117229 CAPLUS Full-text

DN 144:212766

TI Preparation of thiazolyl-containing benzamidines for prevention and treatment of osteoporosis, bone fractures and allergic inflammatory diseases

IN Lee, Jin Soo; Ahn, Seok Hoon; Jin, Young Goo; Jin, Sang Mi; Park, Whui-Jung; Ku, Sae Kwang; Hwang, Yun Ha; Kim, Pan Soo; Yi, Sun Shin; Ryu, Jei Man

PA Dong Wha Pharmaceutical. Ind. Co., Ltd., S. Korea

SO PCT Int. Appl., 186 pp.

CODEN: PIXXD2

DT Patent

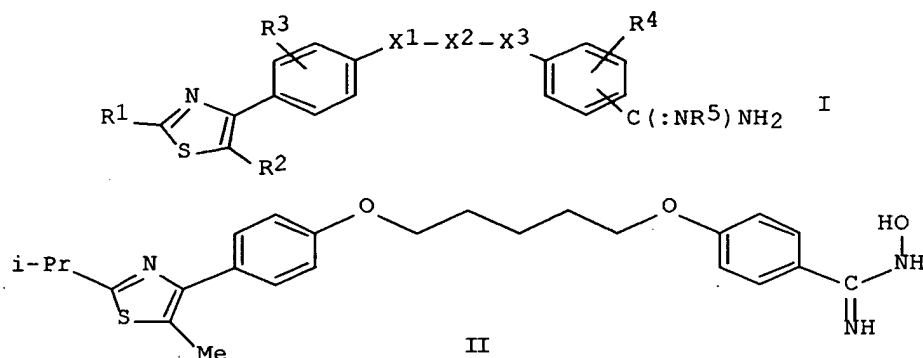
LA English

FAN.CNT 1

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PI	WO 2006014087	A1	20060209	WO 2005-KR2545	20050804
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	RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	KR 2006017929	A	20060228	KR 2004-61481	20040804
	KR 2006049301	A	20060518	KR 2005-71505	20050804

PRAI KR 2004-61481  
OS MARPAT 144:212766  
GI

A 20040804



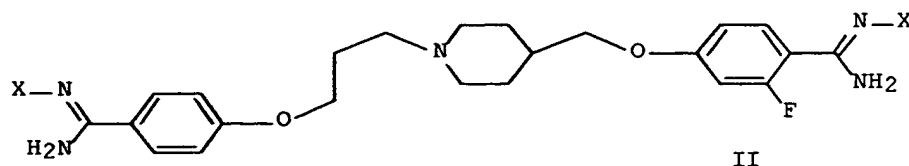
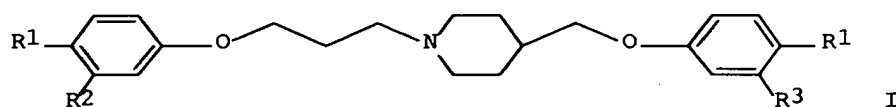
AB The present invention relates to thiazolyl-contg. benzamidines (shown as I; variables defined below; e.g. N-hydroxy-4-[5-[4-(5-methyl-2-isopropyl-1,3-thiazol-4-yl)phenoxy]pentoxy]benzamidine (shown as II)), a process for the preparation thereof and pharmaceutical composition comprising the same. The novel benzamidine derivs. of the present invention are useful for the prevention and treatment of osteoporosis, bone fractures and allergic inflammatory diseases. For I: R1 is C1-C6 alkyl, C3-C6 cycloalkyl, Ph, benzyl, pyridinyl, guanidino, NR6R7, CH2NR6R7, N(CH2CH2)2Y, A-N(CH2)n (A is C1-C6 alkyl and n = 2-6), C1-C6 alkyl which is substituted by pyridine or N(CH2CH2)2Y wherein N(CH2CH2)2Y is (un)substituted by hydroxy, pyridinyl or N(CH2CH2)2Y which is substituted by C1-C6alkyl; R2 is H, C1-C6 alkyl, C3-C6 cycloalkyl, Ph, benzyl, C1-C6 alkyl which is substituted by hydroxy, C1-C6 alkoxy, halogen or C3-C6 cycloalkyl, C2-C6alkenyl. R3 and R4, each independently, = H, halogen, hydroxy, C1-C6 alkyl which is (un)substituted by halogen, C3-C6 cycloalkylamino, C1-C6 alkoxy, C1-C6 alkanoyloxy, C2-C6 alkenyloxy, phenyl-C1-C6 alkoxy, phenoxy, C2-C6 alkenoyloxy or phenyl-C1-C6 alkanoyloxy, C3-C6 cycloalkyloxy which is substituted by carboxy, esterified carboxy or amidated carboxy, aminoxy; R5 is H or hydroxy; Y is O, S, NR6, or CH2; X1 and X3, each independently, = O, S, NH, N-C1-C6 alkyl, N-C3-C6 cycloalkyl, N-benzyl, N-phenyl; X2 is C3-C7 alkylene, C1-C3 alkylene-alkenylene-C1-C3-alkylene, C1-C3 alkylene-O-C1-C3 alkylene, C1-C3 alkylene-S-C1-C3 alkylene, C1-C3 alkylene-NH-C1-C3 alkylene, C1-C3 alkylenephenylene-C1-C3 alkylene, C1-C3 alkylenepyridylene-C1-C3 alkylene, C1-C3 alkylenenaphthylene-C1-C3 alkylene, C3-C7 alkylene which is substituted by C1-C3 alkyl and hydroxy, C3-C7 alkylencarbonyl, C3-C7 alkylene which is interrupted by piperazine; addnl. details including provisos are given in the claims. Percent inhibitory activity of >200 examples of I on osteoclastogenesis, bone-forming activity of 10 examples of I, inhibition of decrease of bone volume induced by ovariectomy in mice by 20 examples of I, decrease in the callus volume and increase of the callus osteoid volume of test substance-dosing groups compared to that of the vehicle control in a rib fracture-induced rat model by 5 examples of I, decrease of absolute and relative lung wts. compared to that of the vehicle control in a mouse model of asthma induced with ovalbumin by 7 examples of I, decrease of total leukocytes in peripheral blood and BALF compared to that of the vehicle control in an asthmatic model, cytotoxicity towards MC3T3-E1 and ST2 cells by 44 examples of I are tabulated. Methods of preparation are claimed and preps. and/or characterization data for >200 examples of I are included. For example, II

was prepared (52 %) by addition of hydroxylamine hydrochloride to 4-[5-[4-(5-methyl-2-isopropyl-1,3-thiazol-4-yl)phenoxy]pentoxy]benzonitrile, which was prepared in 6 steps (90.3, 98, 70, 80, 95, 89 %) starting from 4-hydroxybenzonitrile and 1-bromo-5-chloropentane and involving intermediates 4-(5-chloropentoxy)benzonitrile, 1-(4-methoxyphenyl)-1-propanone, 1-(4-hydroxyphenyl)propan-1-one, 4-[5-[(4-propionylphenyl)oxy]pentoxy]benzonitrile, and 4-[5-[4-(2-bromopropionyl)phenoxy]pentoxy]benzonitrile.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2006:103275 CAPLUS Full-text  
DN 144:192117  
TI Preparation of arylamidine derivatives as antifungal agents  
IN Hayashi, Kazuya; Nomura, Nobuhiko  
PA Toyama Chemical Co., Ltd., Japan  
SO PCT Int. Appl., 64 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006011499	A1	20060202	WO 2005-JP13702	20050727
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRAI	JP 2004-219715	A	20040728		
OS	MARPAT 144:192117				
GI					



AB Title compds. I [R1 = (un)protected amidino; R2, R3 = H, halo] were prepd. For example, acetylation of compound II [X = OH], e.g., prepared from tert-Bu 4-bromomethyl-1-piperidinecarboxylate in 4 steps, followed by in-situ treatment

with Pd/C under H<sub>2</sub> afforded compound II [X = H]. In antifungal activity test, the IC<sub>50</sub> value of compound II hydrochloride [X = H] was 0.002 µg/mL. Compds. I are claimed useful as antifungal agents.

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:31454 CAPLUS Full-text

DN 144:128857

TI Preparation of arylamidine derivatives as antifungal agents

IN Hayashi, Kazuya; Kunitani, Kazuto; Uehara, Sayuri; Morita, Teiichi

PA Toyama Chemical Co., Ltd., Japan

SO PCT Int. Appl., 85 pp.

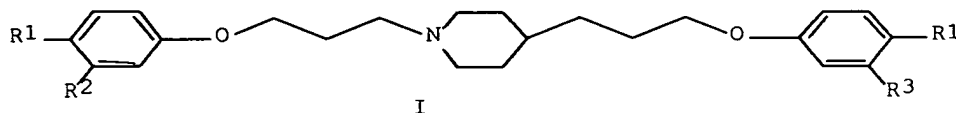
CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006003881	A1	20060112	WO 2005-JP11809	20050628
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRAI	JP 2004-193386	A	20040630		
OS	MARPAT 144:128857				
GI					



AB Title compds. I [R<sub>1</sub> = (un)protected amidino; R<sub>2</sub>, R<sub>3</sub> = H, halo] were prepd. For example, reaction of compound I [R<sub>1</sub> = CN; R<sub>2</sub>, R<sub>3</sub> = H], e.g., prepared from tert-Bu 4-(3-hydroxypropyl)-1-piperidinecarboxylate in 4 steps, with ethanol in the presence of HCl followed by treatment with ammonium acetate afforded compound I [R<sub>1</sub> = amino(imino)methyl; R<sub>2</sub>, R<sub>3</sub> = H]. In antifungal activity test against *Candida albicans* TIMM 1623, the IC<sub>50</sub> value of compound I hydrochloride [R<sub>1</sub> = amino(imino)methyl; R<sub>2</sub>, R<sub>3</sub> = H] was ≤0.0039 µg/mL. Compds. I are claimed useful as antifungal agents. Formulations are given.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:1223697 CAPLUS Full-text

DN 143:459938

TI Preparation of C-25 carbamate rifamycin derivatives with activity against drug-resistant microbes  
 IN Combrink, Keith; Harran, Susan; Denton, Daniel; Ma, Zhenkun  
 PA Cumbre Inc., USA  
 SO U.S. Pat. Appl. Publ., 90 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 2005256096	A1	20051117	US 2005-114384	20050426
PRAI	US 2004-565497P	P	20040426		
OS	MARPAT 143:459938				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Rifamycin C-25 carbamate derivs. of formula I [X = H, (substituted) NH<sub>2</sub>, morpholino, etc.; Y = O; XY = heterocyclic ring; Z = O, (substituted) NOH; R<sub>2</sub>, R<sub>3</sub> = H, alkyl, aryl, heteroaryl, etc.; R<sub>2</sub>R<sub>3</sub> = (substituted) heterocyclic ring, etc.], or its hydroquinone form, are prepared which have antimicrobial activity, including activity against drug-resistant microorganisms. More specifically, compds. of the current invention relate to C-25 carbamate derivs. of rifamycin having another functional group or pharmacophore covalently attached to this position through a carbamate linkage. The resulting compds. exert their antimicrobial activity through a dual-function mechanism and therefore exhibit reduced frequency of resistance. Thus, II was prepared. The prepared compds. demonstrated activity against rifampin-resistant organisms.

L11 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:331777 CAPLUS Full-text

DN 143:43827

TI Design, Synthesis, and Antipicornavirus Activity of 1-[5-(4-Arylphenoxy)alkyl]-3-pyridin-4-ylimidazolidin-2-one Derivatives

AU Chang, Chih-Shiang; Lin, Ying-Ting; Shih, Shin-Ru; Lee, Chung-Chi; Lee, Yen-Chun; Tai, Chia-Liang; Tseng, Sung-Nien; Chern, Jyh-Haur

CS Division of Biotechnology and Pharmaceutical Research, National Health Research Institutes, Zhunan, 350, Taiwan

SO Journal of Medicinal Chemistry (2005), 48(10), 3522-3535

CODEN: JMCMAR; ISSN: 0022-2623

PB American Chemical Society

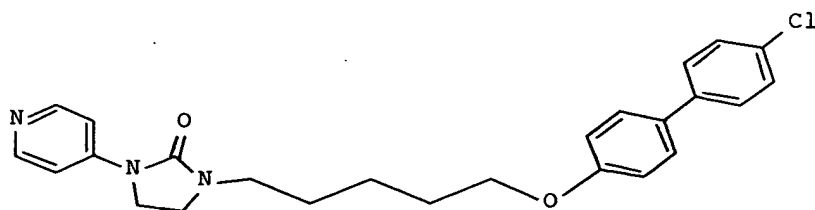
DT Journal

LA English

OS CASREACT 143:43827

GI





AB A series of pyridylimidazolidinone derivs. was synthesized and tested in vitro against enterovirus 71 (EV71). On the basis of DBPR103 (I), introduction of a Me group at the 2- or 3-position of the linker between the imidazolidinone and the biphenyl resulted in markedly improved antiviral activity toward EV71 with IC50 values of 5.0 nM and 9.3 nM, resp. Increasing the branched chain to Pr resulted in a progressive decrease in activity, while inserting different heteroatoms entirely rendered the compound only weakly active. The introduction of a bulky group (cyclohexyl, Ph, or benzyl) led to loss of activity against EV71. The 4-chlorophenyl moiety was replaced with bioisosteric groups such as oxadiazole or tetrazole dramatically improving anti-EV71 activity and selectivity indexes. Some of these compds. exhibited a strong activity against lethal EV71, and no apparent cellular toxicity was observed. Three of the more potent imidazolidinone compds. were subjected to a large group of picornaviruses to determine their spectrum of antiviral activity.

RE.CNT 96 THERE ARE 96 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:322835 CAPLUS Full-text

DN 142:373691

TI Preparation of benzamidine derivatives and antimycotic agents containing them

IN Hayashi, Kazuya; Kunitani, Kazuto; Uehara, Sayuri; Mitsuyama, Junichi

PA Toyama Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 19 pp.

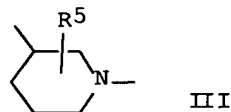
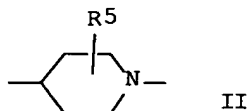
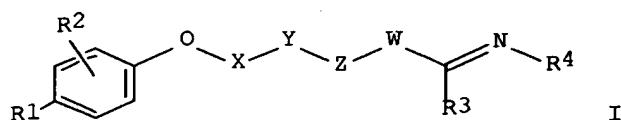
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005097299	A	20050414	JP 2004-257090	20040903
PRAI	JP 2003-313360	A	20030905		
OS	MARPAT 142:373691				
GI					



AB The derivs. I [R1 = (un)protected or (un)substituted amidino; R2 = H, halo, (un)substituted alkyl, cycloalkyl, alkoxy; R3 = H, (un)substituted alkyl, (un)protected or (un)substituted amino; R4 = H, OH, imino-protecting group; X = (un)substituted lower alkylene; Y = (un)substituted divalent cyclic amine residue; Z = (un)substituted alkylene; W = imino, piperidinediyl II, III; R5 = H, (un)substituted alkyl, (un)protected or (un)substituted amino, OH] or their salts are prepared Also claimed are antimycotic agents containing I or their salts. Thus, 4-[3-[4-[6-[[amino(imino)methyl]amino]hexyl]-1-piperazinyl]propoxy]benzamidinium difumarate, prepared from 4-[3-(1-piperazinyl)propoxy]benzonitrile and Br(CH<sub>2</sub>)<sub>6</sub>NHCO<sub>2</sub>CMe<sub>3</sub> with 6 steps, inhibited growth of *Candida albicans* at IC<sub>50</sub> ≤ 0.0039 μg/mL. Effect of the compound on systemic infection of mice with *C. albicans* was also shown.

L11 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:322834 CAPLUS Full-text

DN 142:373545

TI Preparation of arylamidinium derivatives or their salts and antimycotic agents containing them

IN Hayashi, Kazuya; Todo, Keisuke; Mitsuyama, Junichi

PA Toyama Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 35 pp.

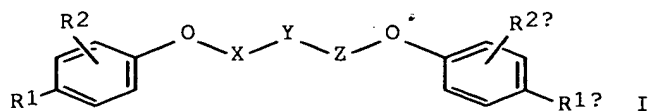
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

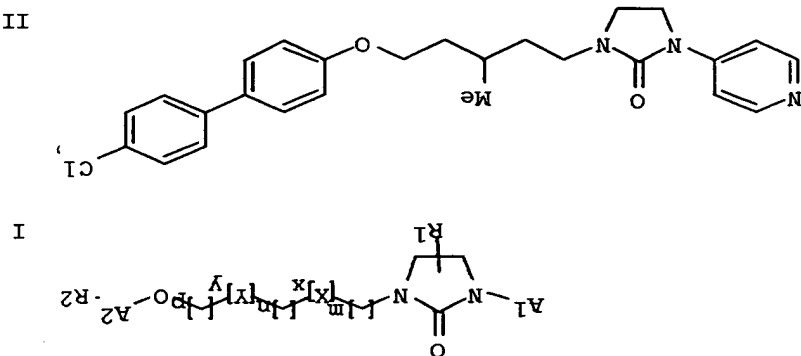
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005097298	A	20050414	JP 2004-256894	20040903
PRAI	JP 2003-313353	A	20030905		
OS	MARPAT 142:373545				
GI					



AB The derivs I [R1, R1a = (un)protected or (un)substituted amidino; R2, R2a = H, halo, (un)substituted alkyl, cycloalkyl, alkoxy; X, Z = (un)substituted C2-6 alkylene; Y = divalent N-containing heterocyclic group residue, aniline residue] or their salts are prepared. Also claimed are antimycotic agents containing I or their salts. Thus, (1S,4S)-(+)-2,5-diazabicyclo[2.2.1]hept-2-yl]propoxy]benzamide hydrochloride. This inhibited growth of Candida albicans at IC50 50.0039 µg/mL. Therapeutic effect of the compound to systemic infection of mice with C. albicans was also shown.

L11 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2004:490448 CAPLUS Full-text  
DN 141:54337  
TI Preparation of imidazolidinones for treating enterovirus infection  
IN Chern, Jyh-Haur; Shih, Shin-Ru; Chen, Chiung-Tong; Chang, Chih-Shiang;  
PA Lee, Chung-Chi; Lee, Yen-Chun; Tai, Chia-Liang  
National Health Research Institutes, Taiwan  
SO U.S. Pat. Appl., 33 pp., Cont.-in-part of U.S. Ser. No. 191,941.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004116476	A1	20040617	US 2003-717786	20031119
US 7129359	B2	20061031		
US 2003087936	A1	20030508	US 2002-191941	20020709
US 6706739	B2	20040316		
PRA1 US 2002-191941	A2	20020709		
US 2001-313878P	P	20010821		
OS MARPAT 141:54337				
GI				



AB The title comps. [I; R1, R2 = H, halo, alkyl, aryl, etc.; A1, A2 = aryl, aralkyl, heteroaryl; X, Y = S, SO, substituted CH2, etc.; m, n, p = 0-5; x, y = 0-1 (at least one of x and y = 1); with provisos], useful in treating enterovirus infection, were prepared Thus, reacting 1-(4-pyridyl)-2-imidazolidinone with 4-(5-bromo-3-methylpentyl)-4'-chlorobiphenyl in the presence of NaH in DMF afforded 71% II which showed antiviral activity against enterovirus, in particular, EV71, coxsackieviruses A9, and A24. The pharmaceutical composition comprising the compound I is claimed.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:374691 CAPLUS Full-text

DN 141:221518

TI Trypanocidal activity of melamine-based nitroheterocycles

AU Stewart, Mhairi L.; Jimenez Bueno, Gorka; Baliani, Alessandro; Klenke, Burkhard; Brun, Reto; Brock, Janice M.; Gilbert, Ian H.; Barrett, Michael

CS Division of Infection and Immunity, Institute of Biomedical and Life

Sciences, University of Glasgow, Glasgow, G12 8QQ, UK

SO Antimicrobial Agents and Chemotherapy (2004), 48(5), 1733-1738

CODEN: AMACCO; ISSN: 0066-4804

PB American Society for Microbiology

DT Journal

LA English

OS CASREACT 141:221518

AB A series of nitroheterocyclic comps. were designed with linkages to melamine

or benzamide groups that are known substrates of the P2 aminopurine and

other transporters in African trypanosomes of the brucei group. Several

comps. showed in vitro trypanotoxicity with 50% inhibitory concns. in the

submicromolar range. Although most comps. interacted with the P2

transporter, as judged by their ability to inhibit adenosine transport via

this carrier, uptake through this route was not necessary for activity since

TbAT1-null mutant parasites, deficient in this transporter, retained

sensitivity to these drugs. One compound, a melamine-linked nitrofur, also

showed pronounced activity against parasites in mice. Studies into the mode

of action of this compound indicated that neither reductive, nor oxidative,

stress were related to its trypanocidal activity ruling out a genotoxic effect

in T. brucei, distinguishing it from some other, mammalian cell toxic,

trypanocidal nitroheterocycles.

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:300984 CAPLUS Full-text

DN 141:23496

TI Parallel Solution-Phase Synthesis of Conformationally Restricted Congeners

of Pentamidine and Evaluation of Their Antiplasmodial Activities

AU Mayence, Annie; Vanden Eynde, Jean Jacques; Krosgstad, Fran M.; Krosgstad,

Donald J.; Cushion, Melanie T.; Huang, Tien L.

CS College of Pharmacy, Division of Basic Pharmaceutical Sciences, Xavier

University of Louisiana, New Orleans, LA, 70125, USA

SO Journal of Medicinal Chemistry (2004), 47(10), 2700-2705

CODEN: JMCMAR; ISSN: 0022-2623

PB American Chemical Society

DT Journal

LA English

OS CASREACT 141:23496

AB Conformationally restricted bisbenzamides and related congeners have been

synthesized and evaluated for activity against two Plasmodium falciparum

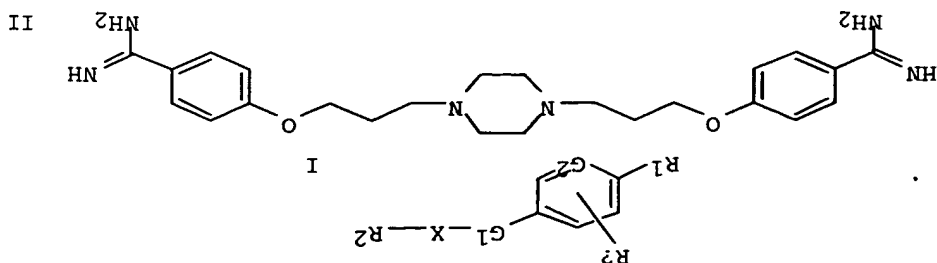
LI1	ANSWER IS OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN	2003:719439 CAPLUS Full-text
DN	139:245783
TI	Preparation of arylamide derivatives as fungicides
IN	Hayashi, Kazuya; Ojima, Katsuji; Hori, Kozo; Okujo, Mitsuyama,
	Junichi; Kunitani, Kazuto; Tohdo, Keisuke
PA	Toyama Chemical Co., Ltd., Japan
SO	PCT Int. Appl., 173 pp.
	CODEN: PIXXD2
DT	Patent
LA	Japanese
EA	EA.CNT 1

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RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB The title arylamide derivs. with general formula of I [wherein X = (un)substituted alkylene or alkenylene; G1 = O, S, or imino; G2 = CH or N; Ra = H, halo, (un)substituted alkyl, cycloalkyl, or alkoxy; R1 = (un)substituted amidino; R2 = (un)substituted NH2, etc.] and salts thereof are prepared as fungicides. For example, the compound II•XHCl was prepared in a multi-step synthesis. II showed IC50 of 0.0039 µg/mL against synthetic amino acid medium fungal (SAAMF) in agar.

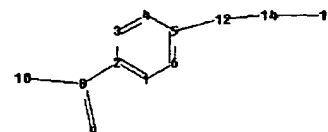
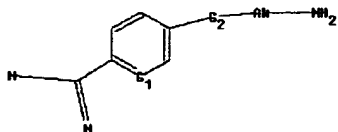


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 \*\*\*\*\* STN Columbus \*\*\*\*\*

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8 9 10 12 14 15

ring nodes :

1 2 3 4 5 6

chain bonds :

2-8 5-12 8-9 8-10 12-14 14-15

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

1-2 1-6 2-3 2-8 3-4 4-5 5-6 5-12 8-9 8-10 12-14 14-15

isolated ring systems :

containing 1 :

G1:C,N

G2:O,S,N

Match level :

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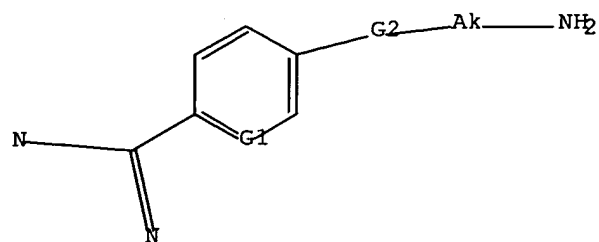
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L1 STR



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G2 O,S,N

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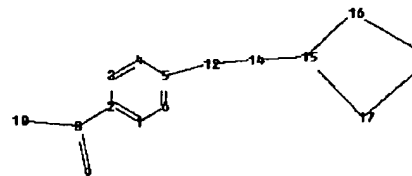
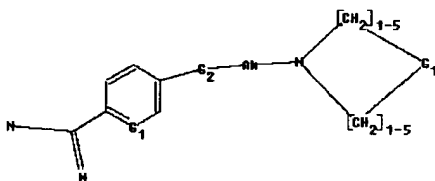
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chain nodes :

8 9 10 12 14

ring nodes :

1 2 3 4 5 6 15 16 17 18

chain bonds :

2-8 5-12 8-9 8-10 12-14 14-15

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 15-16 15-17 16-18 17-18

exact/norm bonds :

1-2 1-6 2-3 2-8 3-4 4-5 5-6 5-12 8-9 8-10 12-14 14-15 15-16 15-17 16-18 17-18

isolated ring systems :

containing 1 :

G1:C,N

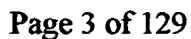
G2:O,S,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 9:CLASS 10:CLASS



L4 STR



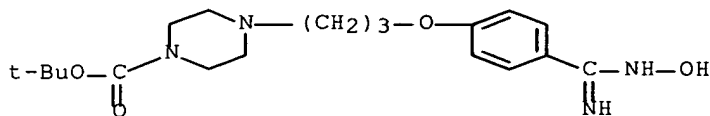
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2001049367	A1	20011206	US 2001-799450	20010305 <--
	US 6559140	B2	20030506		
PRAI	US 2000-187933P	P	20000309		
OS	MARPAT 136:20093				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

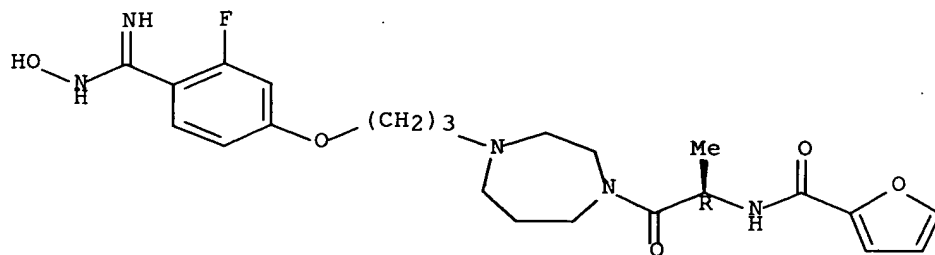
AB Title compds. I - IV [G1 = R5Q1; G3 = R5Q1; L1 = absent, cycloalkyl, cycloalkylalkylene; L2 = absent, alkylene, with the proviso that at least one of L1 or L2 is not absent; n = 1 - 2; Q1 = absent, C(O), C(S), CH2, SO2, C(NR9); Q2 = O, SOO-2, acetylene; R1-3 = H, alkyl; R4 = alkoxy, alkyl, amino, aryl, aryloxy, cycloalkyl, cycloalkoxy, heteroaryl, heterocycloalkyl, etc.; R5 = H, R4; with the proviso that Q1 is not absent in compds. of formula I and when Q1 = CO in I, R4 is not alkyl; and with the proviso that when R5 = H, Q1 = absent or C(O); R6-7 H, alkyl, alkenyl, alkynyl, alkoxy, amino, azido, carboxaldehyde, carboxy, cyano, halo, hydroxy, etc.; R8 = alkyl, alkanoyl, alkoxy, alkoxy carbonyl, amino, aryl, arylalkyl, aryloyl, arylsulfonyl, carboxamido, cyano, cyanoalkyl, cycloalkyl, etc.; R9 = H, alkyl, alkoxy, aryl, etc.] were prepared Examples include over 180 synthetic examples and HT3 receptor binding assay results for over 70 example compds. E.g., cyclopropyl[4-[3-(1-piperazinyl)propoxy]phenyl]methanone (preparation given) was coupled to Boc-L-alanine (CH2Cl2, EDCI, iPr2NEt, DMAP, room temperature, 18 h) to give the corresponding amide. This amide was deprotected (CH2Cl2, TFA, room temperature, 24 h) to give example compound V isolated as the salt of L-tartaric acid. V had Ki = 19.6 nM for the H3 receptor. Compds. I - IV are useful in the treatment of diseases which are alleviated by H3 receptor activity.

IT 360553-49-7P 360553-60-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; cyclic and bicyclic diamino histamine-3 receptor antagonists)  
RN 360553-49-7 CAPLUS  
CN 1-Piperazinecarboxylic acid, 4-[3-[4-[(hydroxyamino)iminomethyl]phenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



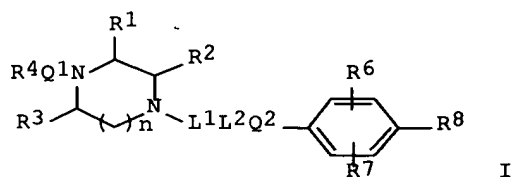
RN 360553-60-2 CAPLUS  
CN 2-Furancarboxamide, N-[(1R)-2-[4-[3-[3-fluoro-4-[(hydroxyamino)iminomethyl]phenoxy]propyl]hexahydro-1H-1,4-diazepin-1-yl]-1-methyl-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2001:676758 CAPLUS Full-text  
 DN 135:242249  
 TI Preparation of piperazines, homopiperazines, and related compounds as histamine H3 receptor antagonists.  
 IN Bennani, Youssef L.; Black, Lawrence A.; Dwight, Wesley J.; Faghieh, Ramin; Gentles, Robert G.; Liu, Huaqing; Phelan, Kathleen M.; Vasudevan, Anil; Zhang, Henry Q.  
 PA Abbott Laboratories, USA  
 SO PCT Int. Appl., 211 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001066534	A2	20010913	WO 2001-US6885	20010305 <--
	WO 2001066534	A3	20031016		
	W: CA, JP, MX				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRAI	US 2000-521973	A	20000309		
OS	MARPAT 135:242249				
GI					



AB Title compds. [I; L1 = null, (substituted) cycloalkyl, cycloalkylalkylene; L2 = null, alkylene, arylalkylene; ≥1 of L1, L2 is present; Q1 = CO, CS, CH2, SO2, etc.; Q2 = O, S, SO, SO2, C.tplbond.C; R1-R3 = H, alkyl; R4 = alkoxy, alkyl, amino, (substituted) aryl, aryloxy, cycloalkyl, cycloalkoxy, etc.; R6, R7 = H, alkyl, alkenyl, alkynyl, alkoxy, amino, N3, CHO, etc.; adjoining R6R7 = OCH2CO; R8 = alkyl, alkanoyl, alkoxy, alkoxycarbonyl, amino, (substituted) aryl, aralkyl, aroyl, etc.; n = 1, 2], were prepared Thus, tert-Bu (1S)-2-[4-[3-[4-(cyclopropylcarbonyl)phenoxy]propyl]-1-piperazinyl]-1-methyl-2-oxoethylcarbamate (preparation given) in CH2Cl2 was stirred with CF3CO2H at 0° to room temperature to give 83% to give [4-[3-[4-[(2S)-2-aminopropanoyl]-1-

piperazinyl]propoxy]phenyl](cyclopropyl)methanone. This showed IC<sub>50</sub> = 19.6 nM in a histamine H3 receptor binding assay.

IT 360554-00-3

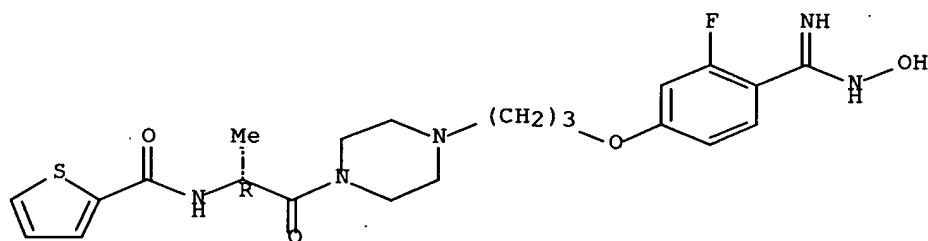
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of piperazines, homopiperazines, and related compds. as histamine H3 receptor antagonists)

RN 360554-00-3 CAPLUS

CN 2-Thiophenecarboxamide, N-[(1R)-2-[4-[3-[3-fluoro-4-[(hydroxyamino)iminomethyl]phenoxy]propyl]-1-piperazinyl]-1-methyl-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



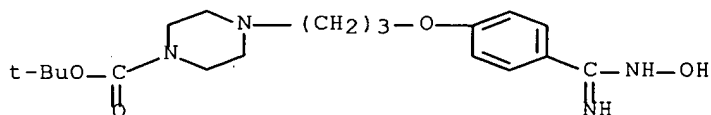
IT 360553-49-7P 360553-50-0P 360553-60-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of piperazines, homopiperazines, and related compds. as histamine H3 receptor antagonists)

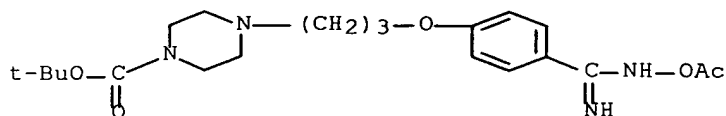
RN 360553-49-7 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[3-[4-[(hydroxyamino)iminomethyl]phenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 360553-50-0 CAPLUS

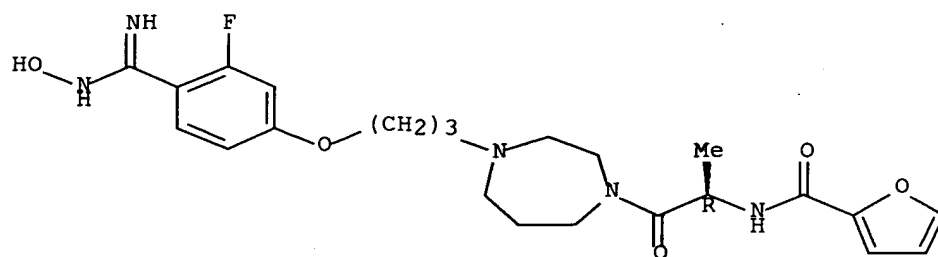
CN 1-Piperazinecarboxylic acid, 4-[3-[4-[[[acetyloxy]amino]iminomethyl]phenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 360553-60-2 CAPLUS

CN 2-Furancarboxamide, N-[(1R)-2-[4-[3-[3-fluoro-4-[(hydroxyamino)iminomethyl]phenoxy]propyl]hexahydro-1H-1,4-diazepin-1-yl]-1-methyl-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



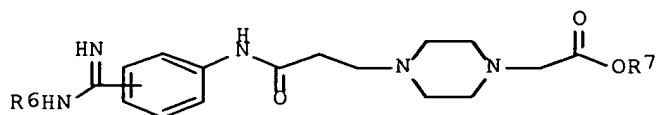
L8 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2001:545679 CAPLUS Full-text  
 DN 135:137523  
 TI Preparation of piperazinylpropionylaminophenylamidines as inhibitors of  
 cell aggregation and cell-matrix interaction.  
 IN Himmelsbach; Frank; Guth, Brian  
 PA Boehringer Ingelheim Pharma K.-G., Germany  
 SO PCT Int. Appl., 28 pp.  
 CODEN: PIXXD2

DT Patent

LA German

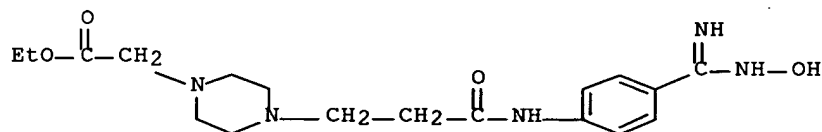
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001053280	A1	20010726	WO 2001-EP372	20010113 <--
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	DE 10002510	A1	20010726	DE 2000-10002510	20000121 <--
	CA 2397533	A1	20010726	CA 2001-2397533	20010113 <--
	EP 1255744	A1	20021113	EP 2001-903646	20010113 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003520791	T	20030708	JP 2001-553755	20010113
	US 2003096824	A1	20030522	US 2002-181576	20021021
	US 6838460	B2	20050104		
PRAI	DE 2000-10002510	A	20000121		
	WO 2001-EP372	W	20010113		
OS	MARPAT 135:137523				
GI					

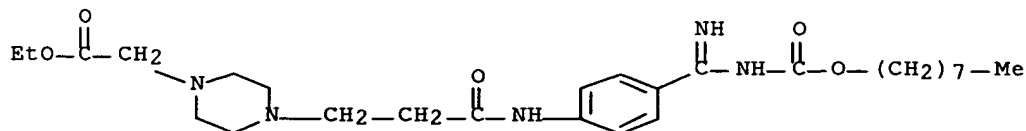


I

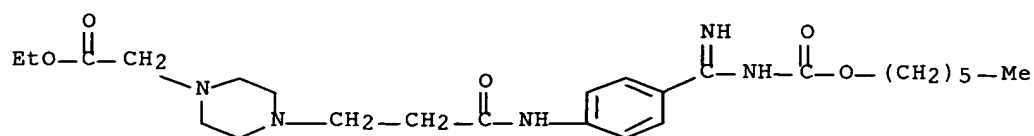
- AB Title compds. (I; R6 = OH, alkoxycarbonyl, arylcarbonyl, aralkoxycarbonyl; R7 = H, alkyl, cycloalkyl, phenylalkyl, etc.), were prepared Thus, 4-[2-[(4-amidinophenyl)aminocarbonyl]ethyl]-1- (ethoxycarbonyl)methylpiperazine triacetate (preparation given) in acetone/H<sub>2</sub>O at 0° was treated with K<sub>2</sub>CO<sub>3</sub> and octyl chloroformate followed by stirring overnight at room temperature to give 45% 4-[2-[(4-octyloxycarbonylamidinophenyl)aminocarbonyl]ethyl]-1- (ethoxycarbonyl)methylpiperazine. The corresponding hexyloxy compound at 1 mg/kg orally in monkeys gave after 4 h a plasma concentration of 4-[2-[(4-amidinophenyl)aminocarbonyl]ethyl]-1-carboxymethylpiperazine of 316 nM.
- IT 351417-11-3P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of piperazinypropionylaminophenylamidines as inhibitors of cell aggregation and cell-matrix interaction)
- RN 351417-11-3 CAPLUS
- CN 1-Piperazineacetic acid, 4-[3-[[4-[(hydroxyamino)iminomethyl]phenyl]amino]-3-oxopropyl]-, ethyl ester (9CI) (CA INDEX NAME)



- IT 351417-07-7P 351417-08-8P 351417-09-9P  
 351417-10-2P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of piperazinypropionylaminophenylamidines as inhibitors of cell aggregation and cell-matrix interaction)
- RN 351417-07-7 CAPLUS
- CN 1-Piperazineacetic acid, 4-[3-[[4-[imino[(octyloxy)carbonyl]amino]methyl]phenyl]amino]-3-oxopropyl]-, ethyl ester (9CI) (CA INDEX NAME)

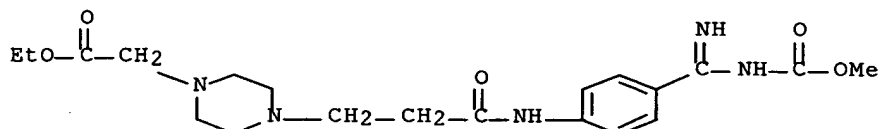


- RN 351417-08-8 CAPLUS
- CN 1-Piperazineacetic acid, 4-[3-[[4-[[[(hexyloxy)carbonyl]amino]iminomethyl]phenyl]amino]-3-oxopropyl]-, ethyl ester (9CI) (CA INDEX NAME)



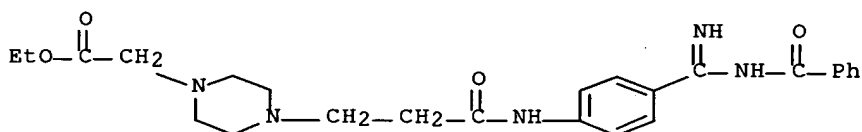
RN 351417-09-9 CAPLUS

CN 1-Piperazineacetic acid, 4-[3-[[4-[(methoxycarbonyl)amino]methyl]phenyl]amino]-3-oxopropyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 351417-10-2 CAPLUS

CN 1-Piperazineacetic acid, 4-[3-[[4-[(benzoylamino)iminomethyl]phenyl]amino]-3-oxopropyl]-, ethyl ester (9CI) (CA INDEX NAME)



IT 351417-14-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of piperazinypropionylaminophenylamidines as inhibitors of cell aggregation and cell-matrix interaction)

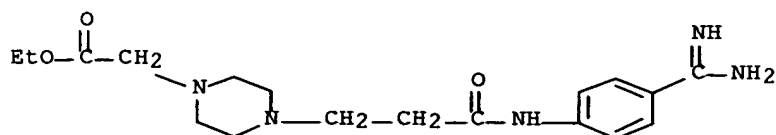
RN 351417-14-6 CAPLUS

CN 1-Piperazineacetic acid, 4-[3-[[4-(aminoiminomethyl)phenyl]amino]-3-oxopropyl]-, ethyl ester, triacetate (9CI) (CA INDEX NAME)

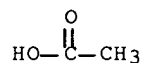
CM 1

CRN 351417-13-5

CMF C18 H27 N5 O3



CM 2

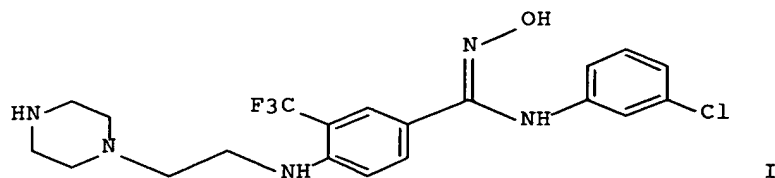
CRN 64-19-7  
CMF C2 H4 O2

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

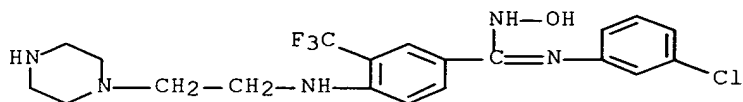
L8 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2001:526050 CAPLUS Full-text  
DN 135:107149  
TI Synthesis, antibacterial activity and RNA polymerase inhibition of  
phenylamidine derivs.  
IN Li, Leping; Chen, Xiaoqui; Fan, Pingchen; Mihalic, Jeffrey Thomas; Cutler,  
Serena  
PA Tularik Inc., USA  
SO PCT Int. Appl., 104 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001051456	A2	20010719	WO 2001-US1219	20010112 <--
	WO 2001051456	A3	20011220		
	W:				
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	CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,				
	HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,				
	LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,				
	SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,				
	YU, ZA, ZW				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
	DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				
	BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2397575	A1	20010719	CA 2001-2397575	20010112 <--
	US 2002045749	A1	20020418	US 2001-759633	20010112 <--
	US 6780858	B2	20040824		
	EP 1246795	A2	20021009	EP 2001-914329	20010112 <--
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003519676	T	20030624	JP 2001-551838	20010112
	US 2004235911	A1	20041125	US 2004-877408	20040625
	US 7053234	B2	20060530		
	US 2006270651	A1	20061130	US 2006-344111	20060201
	US 7148259	B1	20061212		
PRAI	US 2000-175892P	P	20000113		
	US 2001-759633	A1	20010112		
	WO 2001-US1219	W	20010112		
	US 2004-877408	A3	20040625		
OS	MARPAT 135:107149				
GI					





- AB Synthesis of hydroxyamidines, e.g. (I) and related compds. are disclosed which are suitable as antibacterial agents by their inhibition of RNA polymerase. Antibacterial activity against *S. aureus* and *E. coli* are given.
- IT 350487-97-7P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (synthesis, antibacterial activity and RNA polymerase inhibition of phenyl- and heterocyclylhydroxyamidine derivs.)
- RN 350487-97-7 CAPLUS
- CN Benzenecarboximidamide, N-(3-chlorophenyl)-N'-hydroxy-4-[[2-(1-piperazinyl)ethyl]amino]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME).

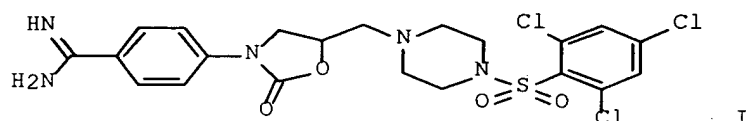


- L8 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 1999:394051 CAPLUS Full-text
- DN 131:44847
- TI Preparation of heterocyclylbenzamidines as blood-coagulation factor Xa inhibitors
- IN Dorsch, Dieter; Juraszyk, Horst; Wurziger, Hanns; Gante, Joachim; Mederski, Werner; Buchstaller, Hans-Peter; Anzali, Soheila; Bernotat-Danielowski, Sabine; Melzer, Guido
- PA Merck Patent G.m.b.H., Germany
- SO Ger. Offen., 36 pp.  
 CODEN: GWXXBX
- DT Patent
- LA German
- FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19755268	A1	19990617	DE 1997-19755268	19971212 <--
	CA 2313651	A1	19990624	CA 1998-2313651	19981127 <--
	WO 9931092	A1	19990624	WO 1998-EP7673	19981127 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW					
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,					

CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9919647	A	19990705	AU 1999-19647	19981127 <--
AU 744002	B2	20020214		
BR 9813477	A	20001024	BR 1998-13477	19981127 <--
EP 1056743	A1	20001206	EP 1998-964455	19981127 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO				
JP 2002508370	T	20020319	JP 2000-539016	19981127 <--
HU 200004353	A2	20020328	HU 2000-4353	19981127 <--
RU 2203897	C2	20030510	RU 2000-118792	19981127
IN 1998CA02144	A	20050311	IN 1998-CA2144	19981208
ZA 9811339	A	19990708	ZA 1998-11339	19981210 <--
NO 2000002958	A	20000811	NO 2000-2958	20000609 <--
PRAI DE 1997-19755268	A	19971212		
WO 1998-EP7673	W	19981127		
OS MARPAT 131:44847				
GI				



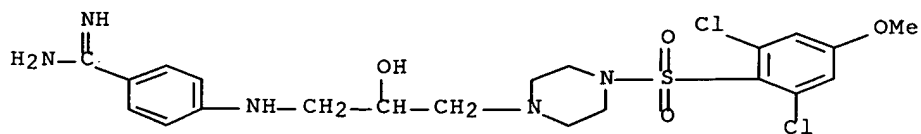
AB R1Z1Z2CH2CH(OR3)CH2Z3Z4R4 [R1 = (acyl- or hydroxy-substituted) C(:NH)NH2, 5-methyl-1,2,4-oxadiazol-3-yl, etc.; R3 = H, alkyl, CH2Ph, etc.; R4 = (cyclo)alkyl, phenyl(alkyl), heterocyclyl(alkyl), etc.; Z1 = (un)substituted phenylene; Z2 = O or NR5; R5 = H, alkyl, CH2Ph; R3R5 = CO; Z3 = O, NR5, piperazine-1,4-diyl, etc.; Z4 = bond, CO, SO2, CO2, CONR5] were prepared as blood-coagulation factor Xa inhibitors (no data). Thus, 3-[4-(5-methyl-1,2,4-oxadiazol-3-yl)phenyl]-2-oxooxazolidine-5-ylmethyl methanesulfonate (preparation described) was aminated by Boc-piperazine and the deprotected product amidated by 2,4,6-trichlorobenzoylsulfonyl chloride to give, after hydrogenation, title compound I.HOAc.

IT 227325-04-4P 227325-05-5P 227325-07-7P  
 227325-08-8P 227325-09-9P 227325-11-3P  
 227325-13-5P 227325-15-7P 227325-17-9P  
 227325-19-1P 227325-21-5P 227325-23-7P  
 227325-25-9P 227325-27-1P 227325-29-3P  
 227325-31-7P 227325-33-9P 227326-61-6P  
 227326-63-8P 227326-65-0P 227326-79-6P  
 227326-81-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of heterocyclylbenzamidines as blood-coagulation factor Xa inhibitors)

RN 227325-04-4 CAPLUS

CN Benzenecarboximidamide, 4-[[3-[4-[(2,6-dichloro-4-methoxyphenyl)sulfonyl]-1-piperazinyl]-2-hydroxypropyl]amino]- (9CI) (CA INDEX NAME)



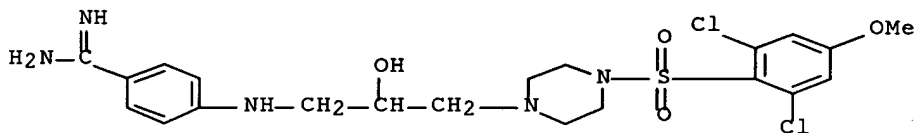
RN 227325-05-5 CAPLUS

CN Benzenecarboximidamide, 4-[[3-[4-[(2,6-dichloro-4-methoxyphenyl)sulfonyl]-1-piperazinyl]-2-hydroxypropyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227325-04-4

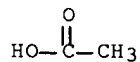
CMF C21 H27 Cl2 N5 O4 S



CM 2

CRN 64-19-7

CMF C2 H4 O2



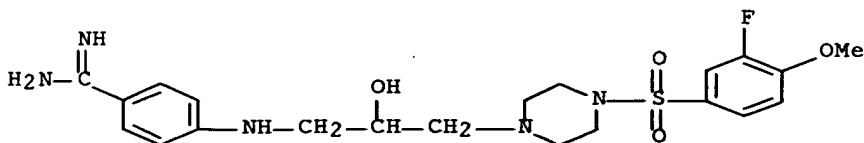
RN 227325-07-7 CAPLUS

CN Benzenecarboximidamide, 4-[[3-[4-[(3-fluoro-4-methoxyphenyl)sulfonyl]-1-piperazinyl]-2-hydroxypropyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227325-06-6

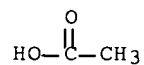
CMF C21 H28 F N5 O4 S



CM 2

CRN 64-19-7

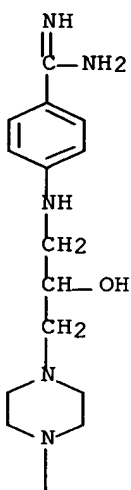
CMF C2 H4 O2



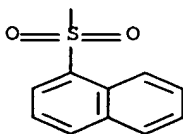
RN 227325-08-8 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-(1-naphthalenylsulfonyl)-1-piperazinyl]propyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



RN 227325-09-9 CAPLUS

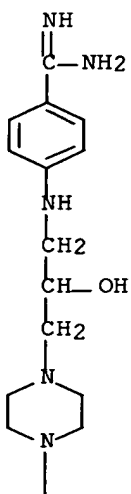
CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-(1-naphthalenylsulfonyl)-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

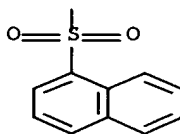
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CMF C24 H29 N5 O3 S

PAGE 1-A

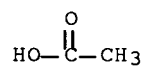


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CM 2

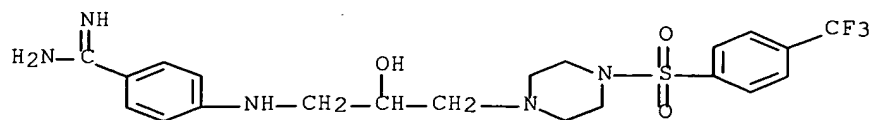
CRN 64-19-7  
CMF C2 H4 O2



RN 227325-11-3 CAPLUS  
CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[[4-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

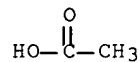
CRN 227325-10-2  
CMF C21 H26 F3 N5 O3 S



CM 2

CRN 64-19-7

CMF C2 H4 O2



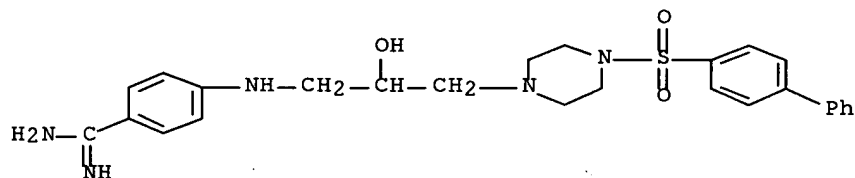
RN 227325-13-5 CAPLUS

CN Benzenecarboximidamide, 4-[[3-[4-([1,1'-biphenyl]-4-ylsulfonyl)-1-piperazinyl]-2-hydroxypropyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227325-12-4

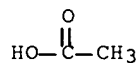
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CM 2

CRN 64-19-7

CMF C2 H4 O2



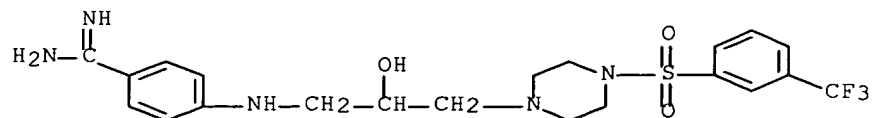
RN 227325-15-7 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[[3-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227325-14-6

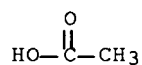
CMF C21 H26 F3 N5 O3 S



CM 2

CRN 64-19-7

CMF C2 H4 O2



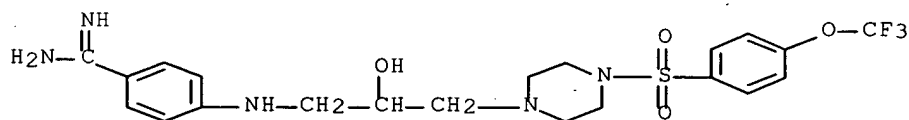
RN 227325-17-9 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[[4-(trifluoromethoxy)phenyl]sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227325-16-8

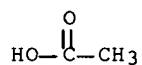
CMF C21 H26 F3 N5 O4 S



CM 2

CRN 64-19-7

CMF C2 H4 O2

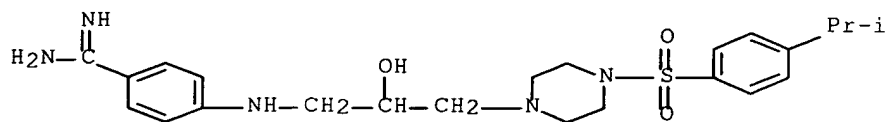


RN 227325-19-1 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[[4-(1-methylethyl)phenyl]sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

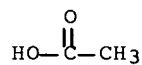
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CM 2

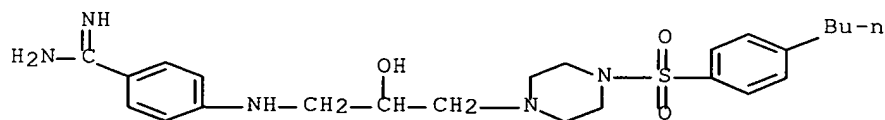
CRN 64-19-7  
CMF C2 H4 O2



RN 227325-21-5 CAPLUS  
CN Benzenecarboximidamide, 4-[[3-[4-[(4-butylphenyl)sulfonyl]-1-piperazinyl]-2-hydroxypropyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

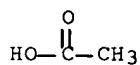
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CRN 227325-20-4  
CMF C24 H35 N5 O3 S



CM 2

CRN 64-19-7  
CMF C2 H4 O2



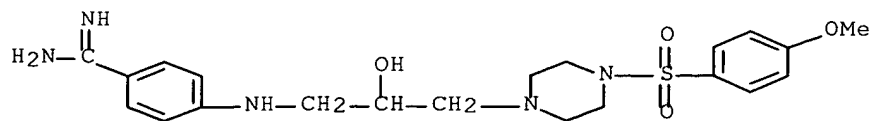
RN 227325-23-7 CAPLUS  
CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[(4-methoxyphenyl)sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227325-22-6



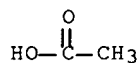
CMF C21 H29 N5 O4 S



CM 2

CRN 64-19-7

CMF C2 H4 O2



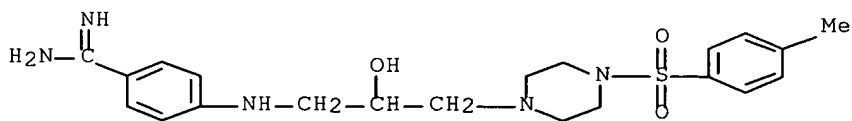
RN 227325-25-9 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[(4-methylphenyl)sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227325-24-8

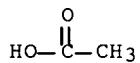
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CM 2

CRN 64-19-7

CMF C2 H4 O2



RN 227325-27-1 CAPLUS

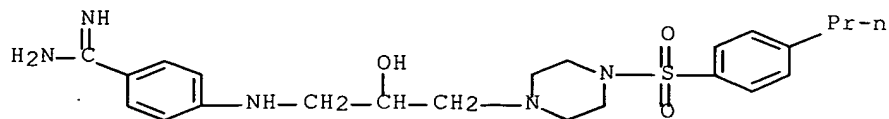
CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[(4-propylphenyl)sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227325-26-0

CMF C23 H33 N5 O3 S

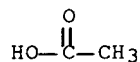




CM 2

CRN 64-19-7

CMF C2 H4 O2



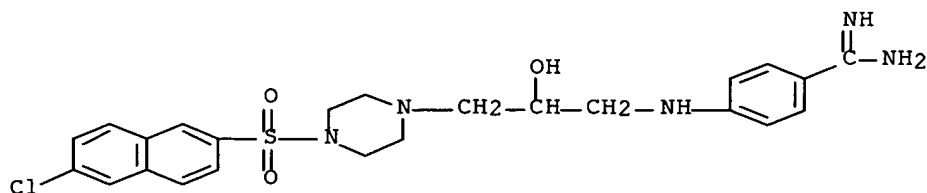
RN 227325-29-3 CAPLUS

CN Benzenecarboximidamide, 4-[[3-[4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-piperazinyl]-2-hydroxypropyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227325-28-2

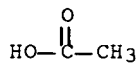
CMF C24 H28 Cl N5 O3 S



CM 2

CRN 64-19-7

CMF C2 H4 O2

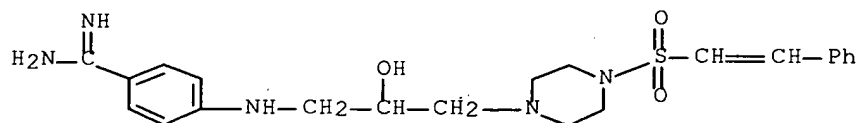


RN 227325-31-7 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[(2-phenylethenyl)sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

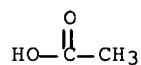
CM 1

CRN 227325-30-6  
CMF C22 H29 N5 O3 S



CM 2

CRN 64-19-7  
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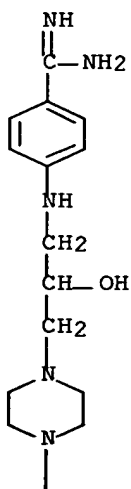


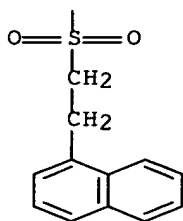
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CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-[[2-(1-naphthalenyl)ethyl]sulfonyl]-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227325-32-8  
CMF C26 H33 N5 O3 S

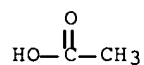
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CM 2

CRN 64-19-7  
CMF C2 H4 O2

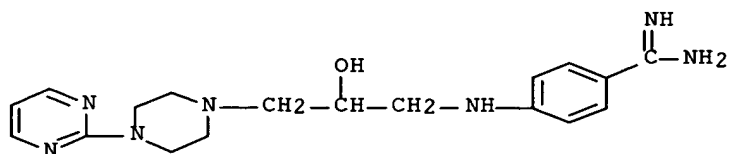


RN 227326-61-6 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-(2-pyrimidinyl)-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

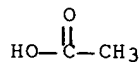
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CRN 227326-60-5  
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CM 2

CRN 64-19-7  
CMF C2 H4 O2

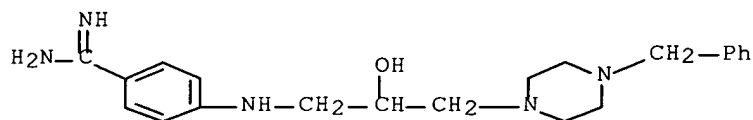


RN 227326-63-8 CAPLUS

CN Benzenecarboximidamide, 4-[[2-hydroxy-3-[4-(phenylmethyl)-1-piperazinyl]propyl]amino]-, monoacetate (salt) (9CI) (CA INDEX NAME)

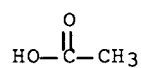
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CRN 227326-62-7  
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CM 2

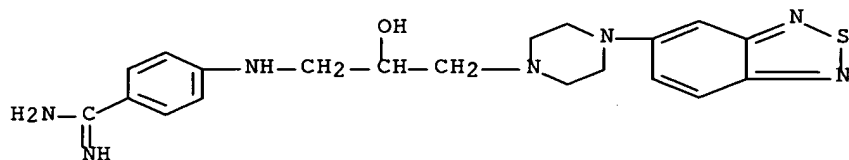
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CMF C2 H4 O2



RN 227326-65-0 CAPLUS  
CN Benzenecarboximidamide, 4-[[3-[4-(2,1,3-benzothiadiazol-5-yl)-1-piperazinyl]-2-hydroxypropyl]amino]-, mono(trifluoroacetate) (salt) (9CI)  
(CA INDEX NAME)

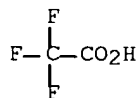
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CM 2

CRN 76-05-1  
CMF C2 H F3 O2



RN 227326-79-6 CAPLUS  
CN 1-Piperazinecarboxamide, 4-[3-[[4-(aminoiminomethyl)phenyl]amino]-2-

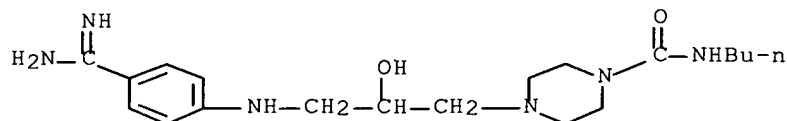
10/506,422

hydroxypropyl]-N-butyl-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227326-78-5

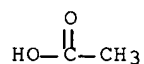
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CM 2

CRN 64-19-7

CMF C2 H4 O2



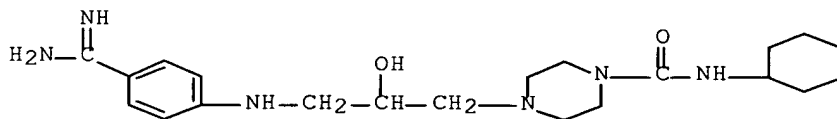
RN 227326-81-0 CAPLUS

CN 1-Piperazinecarboxamide, 4-[3-[[4-(aminoiminomethyl)phenyl]amino]-2-hydroxypropyl]-N-cyclohexyl-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 227326-80-9

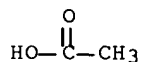
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CM 2

CRN 64-19-7

CMF C2 H4 O2



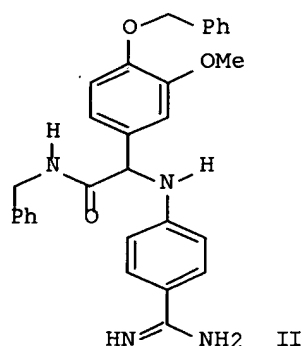
L8 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:375282 CAPLUS Full-text

DN 131:44656  
 TI Preparation of N-(4-amidinophenyl)phenylglycineamides as factor  
 VIIa/tissue factor inhibitors  
 IN Grobke, Katrin; Ji, Yu-hua; Wallbaum, Sabine; Weber, Lutz  
 PA F. Hoffmann-La Roche A.-G., Switz.  
 SO Eur. Pat. Appl., 46 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 921116	A1	19990609	EP 1998-122169	19981126 <--
	EP 921116	B1	20030618		
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	PT 921116	T	20031128	PT 1998-122169	19981126
	CA 2201396	T3	20040316	ES 1998-122169	19981126
	CA 2255180	A1	19990604	CA 1998-2255180	19981202 <--
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	US 6140353	A	20001031	US 1998-204373	19981202 <--
	IL 127361	A	20020912	IL 1998-127361	19981202 <--
	ZA 9811077	A	19990604	ZA 1998-11077	19981203 <--
	NO 9805646	A	19990607	NO 1998-5646	19981203 <--
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	AU 739769	B2	20011018		
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	CN 1115330	B	20030723		
	JP 11246507	A	19990914	JP 1998-345875	19981204 <--
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PRAI	EP 1997-121285	A	19971204		
	EP 1998-121374	A	19981110		
OS	MARPAT 131:44656				
GI					





AB RR1NCOCHR2NHZC(:NG1)NHG2 [I; 1 of G1,G2 = H and the other = H, OH, alkyl, alkoxy, etc.; R = (un)substituted alkyl, cycloalkyl, aryl; R1 = H or alkyl; R2 = (un)substituted Ph or -pyridyl; Z = (3-hydroxy) 1,4-phenylene] were prepared. Thus, 3,4-(MeO)(PhCH2O)C6H3CHO, 4-(H2N)C6H4C(:NH)NH2, and PhCH2NC were condensed to give, after acidification, title compound II.HCl. Data for biol. activity of I were given.

IT 227022-13-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

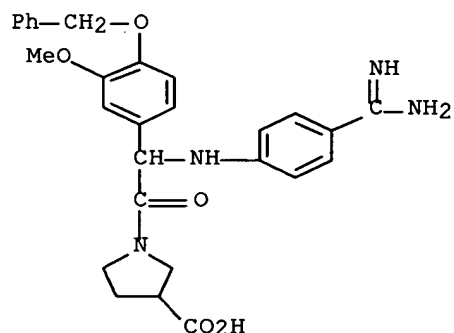
(preparation of N-(4-amidinophenyl)phenylglycineamides as factor

VIIa/tissue

factor inhibitors)

RN 227022-13-1 CAPLUS

CN 3-Pyrrolidinecarboxylic acid, 1-[[[4-(aminoiminomethyl)phenyl]amino][3-methoxy-4-(phenylmethoxy)phenyl]acetyl]- (9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:233904 CAPLUS Full-text

DN 130:282084

TI Benzamidine derivatives as factor Xa inhibitors

IN Dorsch, Dieter; Juraszyk, Horst; Wurziger, Hanns; Bernotat-Danielowski, Sabine; Melzer, Guido

PA Merck Patent G.m.b.H., Germany

SO PCT Int. Appl., 79 pp.

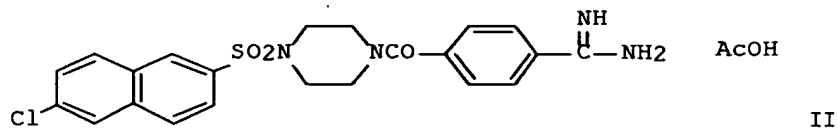
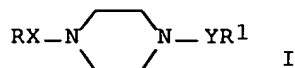
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9916751	A1	19990408	WO 1998-EP5898	19980916 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	DE 19743435	A1	19990408	DE 1997-19743435	19971001 <--
	CA 2305568	A1	19990408	CA 1998-2305568	19980916 <--
	AU 9895407	A	19990423	AU 1998-95407	19980916 <--
	AU 736080	B2	20010726		
	EP 1025086	A1	20000809	EP 1998-948982	19980916 <--
	EP 1025086	B1	20030625		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO				
	BR 9812699	A	20000822	BR 1998-12699	19980916 <--
	JP 2001518467	T	20011016	JP 2000-513837	19980916 <--
	HU 200004306	A2	20011128	HU 2000-4306	19980916 <--
	SK 282799	B6	20021203	SK 2000-447	19980916 <--
	RU 2194044	C2	20021210	RU 2000-110737	19980916 <--
	AT 243681	T	20030715	AT 1998-948982	19980916
	IN 1998CA01737	A	20050311	IN 1998-CA1737	19980925
	ZA 9808937	A	19990331	ZA 1998-8937	19980930 <--
	NO 2000001687	A	20000331	NO 2000-1687	20000331 <--
	US 6492368	B1	20021210	US 2000-509729	20000331 <--
PRAI	DE 1997-19743435	A	19971001		
	WO 1998-EP5898	W	19980916		
OS	MARPAT 130:282084				
GI					



AB Title compds. I [X = bond, CO, (un)substituted CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, CH<sub>2</sub>CO, CH<sub>2</sub>CH<sub>2</sub>CO, CH:CHCO, NHCO; Y = (un)substituted CH<sub>2</sub>, SO<sub>2</sub>, CO, CO<sub>2</sub>, CONH; R = (un)substituted Ph; R<sub>1</sub> = H, (un)substituted alkyl, oxaalkyl, thiaalkyl, alkenyl, cycloalkyl, aryl, aryloxy, heterocyclic, aralkenyl] are inhibitors of coagulation factor Xa and can be used for preventing or treating thromboembolic disorders (no data). Thus, 4-(5-methyl-1,2,4-oxadiazol-3-

yl)benzoic acid was converted to the acid chloride, treated with N-tert.-butoxycarbonylpiperazine, and deblocked to give [4-(5-methyl-1,2,4-oxadiazol-3-yl)phenyl]piperazin-1-ylmethanone which was treated with 6-chloro-2-naphthalenesulfonyl chloride and reduced to give the benzamidine II.

IT 222544-35-6P 222544-37-8P 222544-39-0P  
222544-41-4P 222544-43-6P 222544-45-8P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperazinybenzamidine derivs. as factor Xa inhibitors)

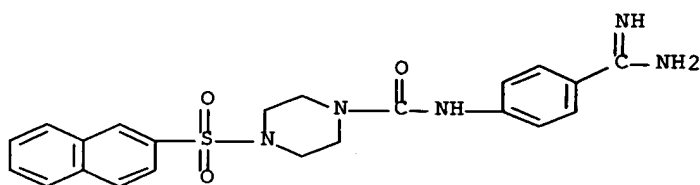
RN 222544-35-6 CAPLUS

CN 1-Piperazinecarboxamide, N-[4-(aminoiminomethyl)phenyl]-4-(2-naphthalenylsulfonyl)-, monoacetate (9CI) (CA INDEX NAME)

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CRN 222544-34-5

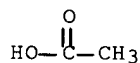
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CM 2

CRN 64-19-7

CMF C2 H4 O2



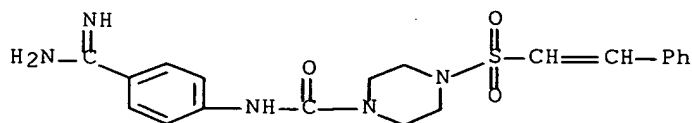
RN 222544-37-8 CAPLUS

CN 1-Piperazinecarboxamide, N-[4-(aminoiminomethyl)phenyl]-4-[(2-phenylethenyl)sulfonyl]-, monoacetate (9CI) (CA INDEX NAME)

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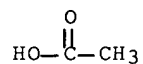
CRN 222544-36-7

CMF C20 H23 N5 O3 S



CM 2

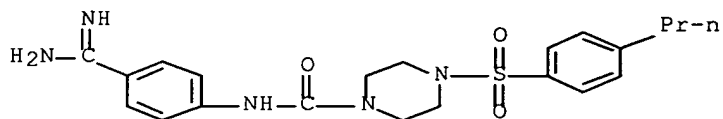
CRN 64-19-7  
CMF C2 H4 O2



RN 222544-39-0 CAPLUS  
CN 1-Piperazinecarboxamide, N-[4-(aminoiminomethyl)phenyl]-4-[(4-propylphenyl)sulfonyl]-, monoacetate (9CI) (CA INDEX NAME)

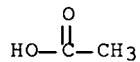
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CRN 222544-38-9  
CMF C21 H27 N5 O3 S



CM 2

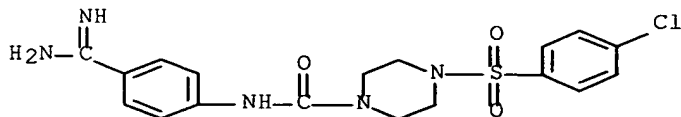
CRN 64-19-7  
CMF C2 H4 O2



RN 222544-41-4 CAPLUS  
CN 1-Piperazinecarboxamide, N-[4-(aminoiminomethyl)phenyl]-4-[(4-chlorophenyl)sulfonyl]-, monoacetate (9CI) (CA INDEX NAME)

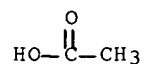
CM 1

CRN 222544-40-3  
CMF C18 H20 Cl N5 O3 S



CM 2

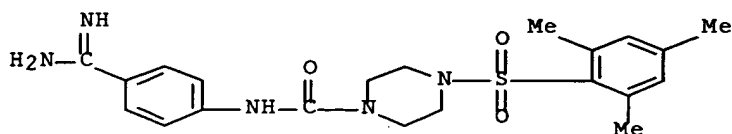
CRN 64-19-7  
CMF C2 H4 O2



RN 222544-43-6 CAPLUS  
CN 1-Piperazinecarboxamide, N-[4-(aminoiminomethyl)phenyl]-4-[(2,4,6-trimethylphenyl)sulfonyl]-, monoacetate (9CI) (CA INDEX NAME)

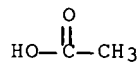
CM 1

CRN 222544-42-5  
CMF C21 H27 N5 O3 S



CM 2

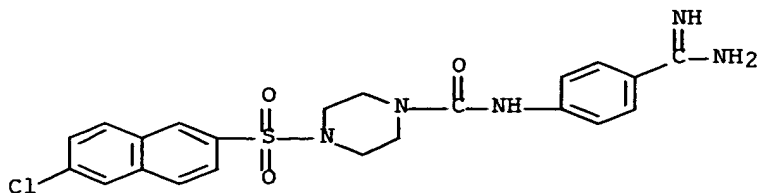
CRN 64-19-7  
CMF C2 H4 O2



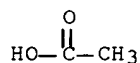
RN 222544-45-8 CAPLUS  
CN 1-Piperazinecarboxamide, N-[4-(aminoiminomethyl)phenyl]-4-[(6-chloro-2-naphthalenyl)sulfonyl]-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 222544-44-7  
CMF C22 H22 Cl N5 O3 S



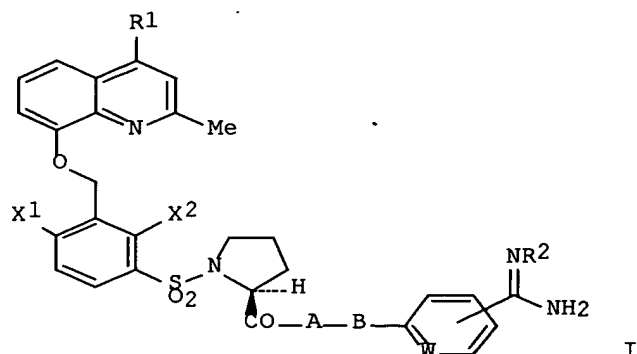
CM 2

CRN 64-19-7  
CMF C2 H4 O2

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1998:87728 CAPLUS Full-text  
DN 128:154381  
TI Preparation of N-benzenesulfonyl-L-proline derivatives as bradykinin B2 agonists  
IN Dodey, Pierre; Bondoux, Michel; Houziaux, Patrick; Barth, Martine; Ou, Khan  
PA Fournier Industrie et Sante, Fr.; Dodey, Pierre; Bondoux, Michel; Houziaux, Patrick; Barth, Martine; Ou, Khan  
SO PCT Int. Appl., 72 pp.  
CODEN: PIXXD2  
DT Patent  
LA French  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9803503	A1	19980129	WO 1997-FR1377	19970723 <--
	W: AU, BG, BR, CA, CN, CZ, EE, HU, IL, JP, KR, MX, NO, NZ, PL, RO, RU, SG, SK, TR, UA, US, VN				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	FR 2751650	A1	19980130	FR 1996-9327	19960724 <--
	FR 2751650	B1	19981009		
	CA 2261743	A1	19980129	CA 1997-2261743	19970723 <--
	AU 9738536	A	19980210	AU 1997-38536	19970723 <--
	EP 925295	A1	19990630	EP 1997-935612	19970723 <--
	EP 925295	B1	20011004		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, RO				
	JP 2000514818	T	20001107	JP 1998-506663	19970723 <--
	AT 206419	T	20011015	AT 1997-935612	19970723 <--
	PT 925295	T	20020328	PT 1997-935612	19970723 <--
	ES 2167768	T3	20020516	ES 1997-935612	19970723 <--
	PL 186396	B1	20040130	PL 1997-331347	19970723
	US 6071917	A	20000606	US 1999-230334	19990125 <--
PRAI	FR 1996-9327	A	19960724		
	WO 1997-FR1377	W	19970723		
OS	MARPAT 128:154381				
GI					



AB N-benzenesulfonyl-L-proline derivs. I. [X1, X2 = halo, alkoxy; R1 = H, trifluoroalkyl, alkyl; R2 = H, OH; A = NR3(CH2)n (R3 = H, Me and n = 0-3), 1,4-piperazinediyl, hexahydro-1,4-diazepine-1,4-diyl, NH(CH2)nCH(CH2CH2)2N [n = 0-3, CH(CH2CH2)2N = 1,4-piperazinediyl]; B = bond, CO, COCH2, COCH2O, COCH:CH, SO2; W = CH, N] or their salts were prepared as bradykinin B2 agonists. Thus, I.2HCl (X1 = X2 = Cl, R1 = Me, R2 = H, A = NHCH2, B = bond, W = CH; the amidino group is in the 3-position) was prepared from N-[[3-[(2,4-dimethylquinolin-8-yl)oxymethyl]-2,4-dichlorophenyl]sulfonyl]-L-proline by sequential reaction with H2S, MeI, NH4OAc, and HCl. The product inhibited binding of [3H] bradykinin to the B2 receptor in guinea pigs (100% activity).

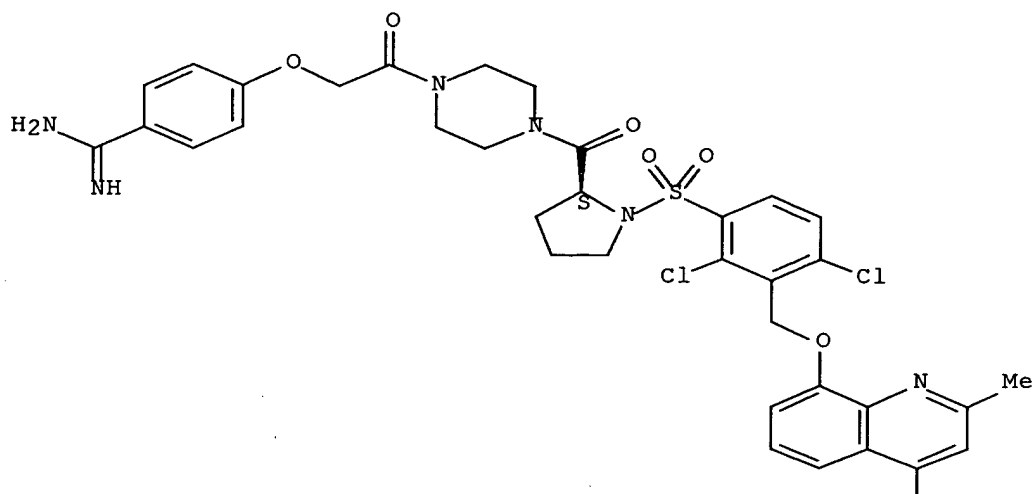
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202602-62-8P 202602-66-2P 202720-61-4P  
202720-64-7P 202720-67-0P 202720-69-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of benzenesulfonylproline derivs. as bradykinin B2 agonists)

RN 202602-40-2 CAPLUS

CN Piperazine, 1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-[[[(2S)-1-[[2,4-dichloro-3-[[[(2,4-dimethyl-8-quinolinyl)oxy]methyl]phenyl]sulfonyl]-2-pyrrolidinyl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

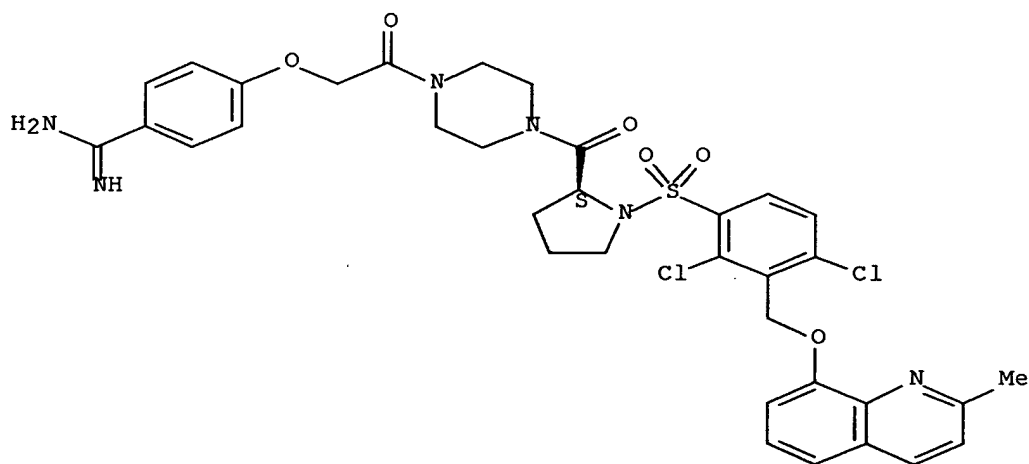


Me

RN 202602-44-6 CAPLUS

CN Piperazine, 1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-[[[(2S)-1-[[2,4-dichloro-3-[[[(2-methyl-8-quinolinyloxy)methyl]phenyl]sulfonyl]-2-pyrrolidinyl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



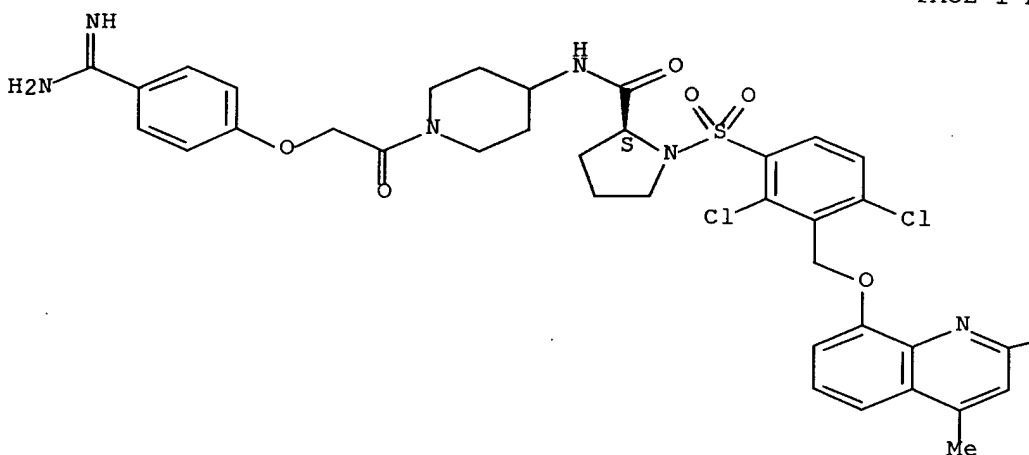
RN 202602-49-1 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]-1-[[2,4-dichloro-3-[[[(2,4-dimethyl-8-quinolinyloxy)methyl]phenyl]sulfonyl]-, (S)- (9CI) (CA INDEX NAME)



Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

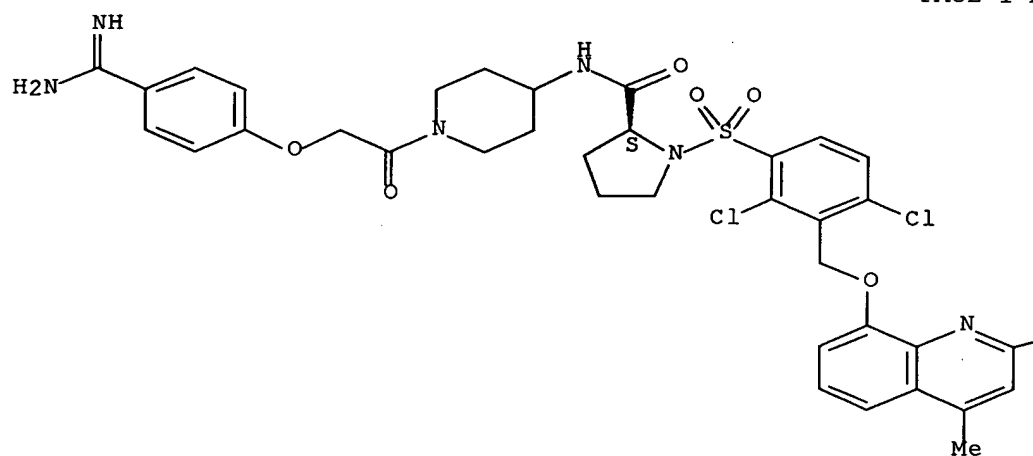
—Me

RN 202602-52-6 CAPLUS  
 CN 2-Pyrrolidinecarboxamide, N-[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]-1-[[2,4-dichloro-3-[[2,4-dimethyl-8-quinolinyl)oxy]methyl]phenyl]sulfonyl]-, (S)-, dimethanesulfonate (9CI)  
 (CA INDEX NAME)

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CRN 202602-49-1  
 CMF C37 H40 Cl2 N6 O6 S

Absolute stereochemistry.

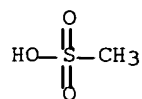


—Me

CM 2

CRN 75-75-2

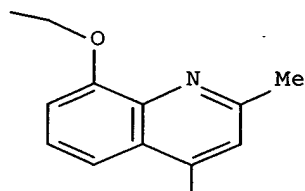
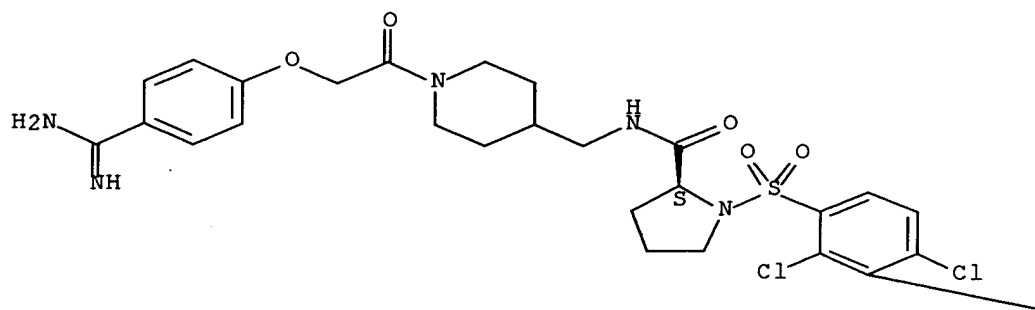
CMF C H4 O3 S



RN 202602-53-7 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[[[1-[[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]methyl]-1-[[2,4-dichloro-3-[[2,4-dimethyl-8-quinolinyl]oxy]methyl]phenyl]sulfonyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 202602-56-0 CAPLUS  
 CN 2-Pyrrolidinecarboxamide, N-[[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]methyl]-1-[[2,4-dichloro-3-[[2,4-dimethyl-8-quinolinyl]oxy]methyl]phenyl]sulfonyl]-, (S)-, dimethanesulfonate (9CI)  
 (CA INDEX NAME)

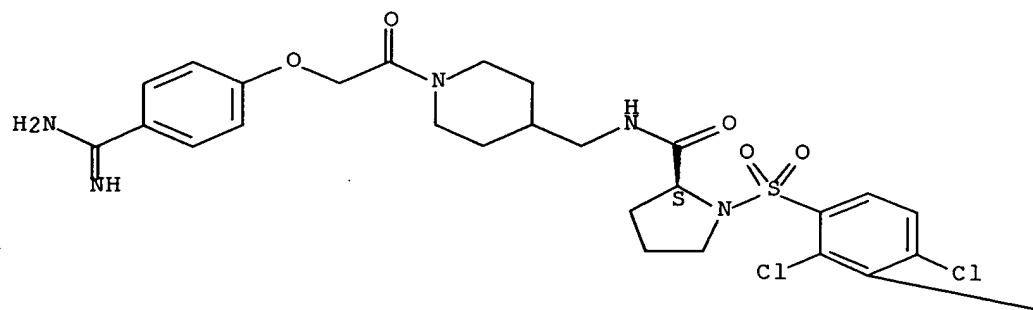
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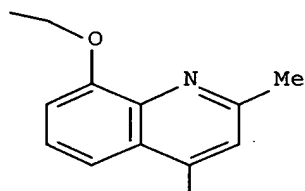
CMF C38 H42 Cl2 N6 O6 S

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



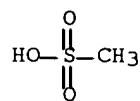
PAGE 2-B



CM 2

CRN 75-75-2

CMF C H4 O3 S



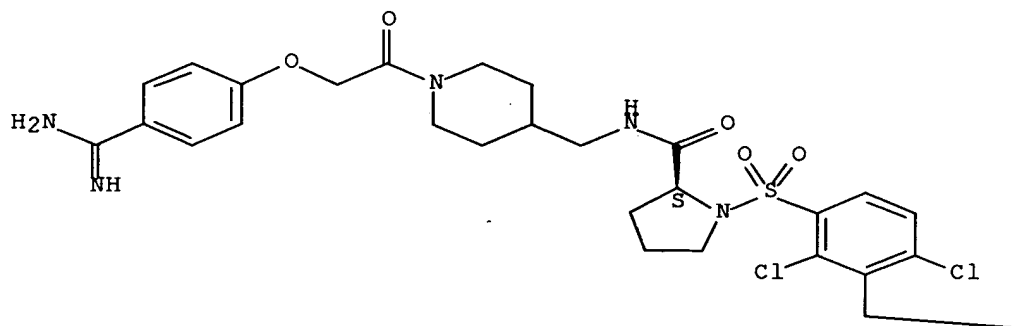
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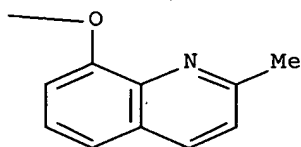
CN 2-Pyrrolidinecarboxamide, N-[[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]methyl]-1-[[2,4-dichloro-3-[(2-methyl-8-quinolinyl)oxy]methyl]phenyl]sulfonyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



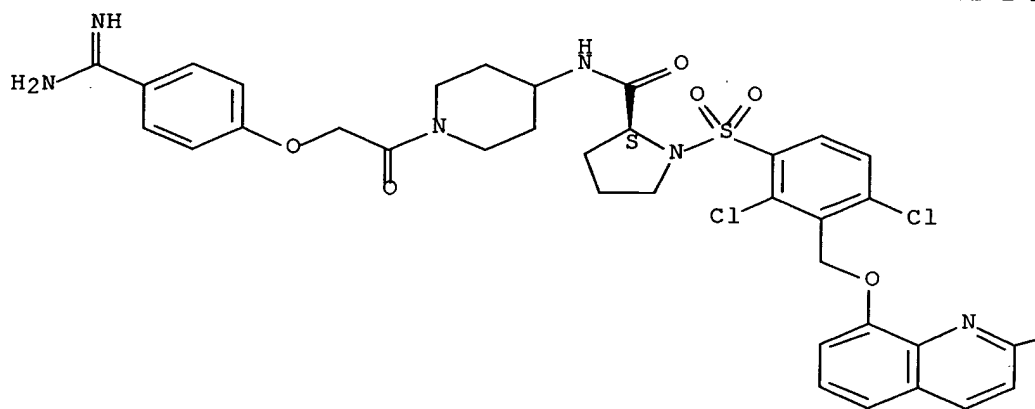
PAGE 1-B



RN 202602-66-2 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]-1-[[2,4-dichloro-3-[(2-methyl-8-quinolinyl)oxy]methyl]phenyl]sulfonyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

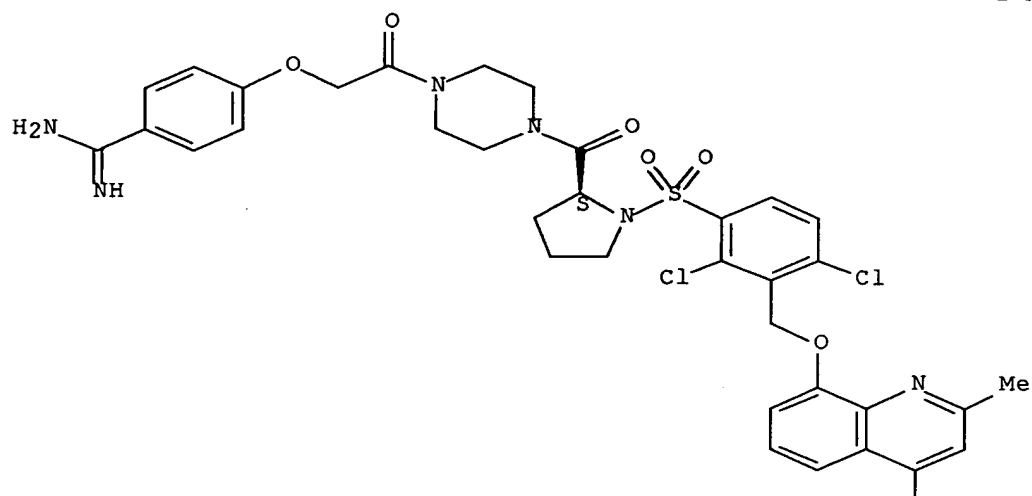


—Me

RN 202720-61-4 CAPLUS

CN Piperazine, 1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-[[1-[[2,4-dichloro-3-[[2,4-dimethyl-8-quinolinyl]oxy]methyl]phenyl]sulfonyl]-2-pyrrolidinyl]carbonyl]-, dihydrochloride, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



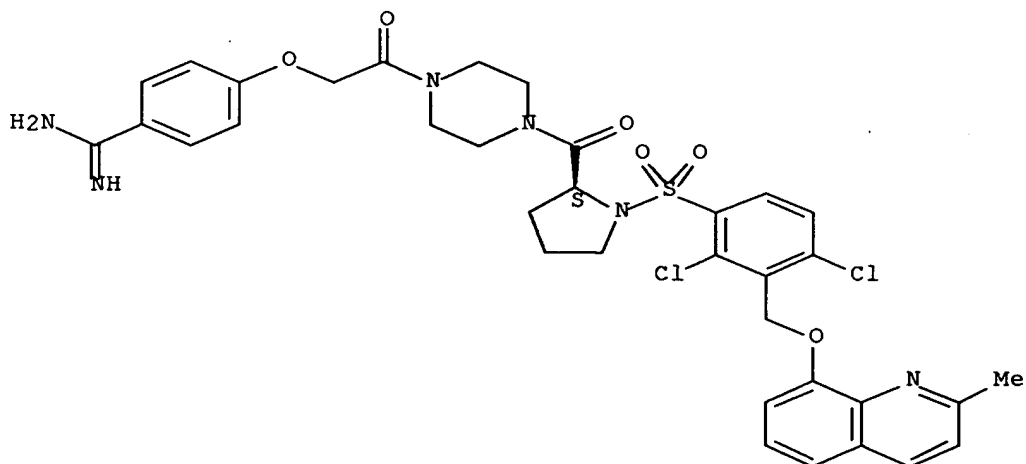
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RN 202720-64-7 CAPLUS

CN Piperazine, 1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-[[1-[[2,4-dichloro-3-[[2-methyl-8-quinolinyl]oxy]methyl]phenyl]sulfonyl]-2-pyrrolidinyl]carbonyl]-, dihydrochloride, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



PAGE 2-A

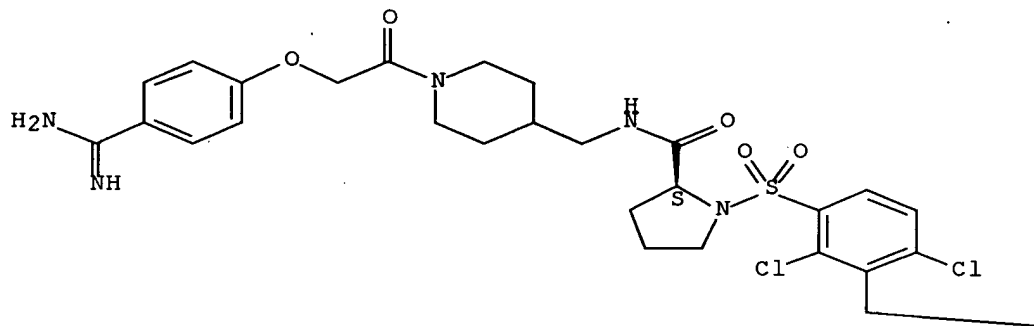
●2 HCl

RN 202720-67-0 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]methyl]-1-[[2,4-dichloro-3-[[2-methyl-8-quinolinyl]oxy]methyl]phenyl]sulfonyl]-, dihydrochloride, (S)- (9CI) (CA INDEX NAME)

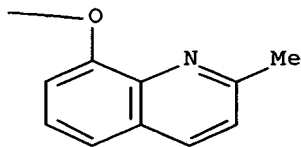
Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 1-B

●2 HCl



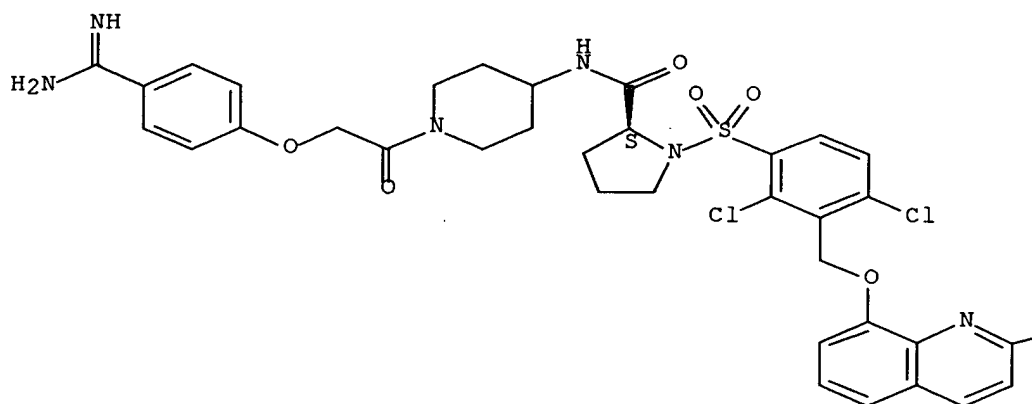
RN 202720-69-2 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[1-[[4-(aminoiminomethyl)phenoxy]acetyl]-4-piperidinyl]-1-[[2,4-dichloro-3-[[2-methyl-8-quinolinyl]oxy]methyl]phenyl]sulfonyl]-, dihydrochloride, (S)- (9CI) (CA INDEX NAME)



Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 1-B

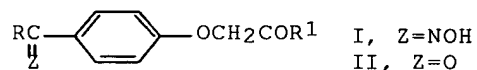
● 2 HCl

— Me

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1996:644905 CAPLUS Full-text  
DN 125:292448  
TI Novel aromatic urea derivatives with DNA-binding ability  
AU Fukutomi, Ryuuta; Kagechika, Hiroyuki; Hashimoto, Yuichi; Shudo, Koichi  
CS Fac. Pharmaceutical Sciences, Univ. Tokyo, Tokyo, 113, Japan  
SO Chemical & Pharmaceutical Bulletin (1996), 44(10), 1983-1985  
CODEN: CPBTAL; ISSN: 0009-2363  
PB Pharmaceutical Society of Japan  
DT Journal  
LA English  
AB Several arom. urea derivs. were designed and synthesized as DNA-targeting agents. N,N'-Dimethyl-N,N'-bis[(4-amidylphenyl)aminocarbonyl]-2,6-diaminopyridine (1) and 1,3-bis[5-(glycylamino)pyrid-2-yl]urea (3) showed remarkable DNA-binding abilities as determined by ultrafiltration assay using calf thymus DNA, their potencies being equal to and half that of netropsin,

JP 51009745	B	19760330	JP 1973-122125	19731030 <--
SE 7504490	A	19750418	SE 1975-4490	19750418 <--
SE 414497	B	19800804		
SE 414497	C	19801120		
US 4058552	A	19771115	US 1975-600127	19750729 <--
US 4233298	A	19801111	US 1977-829964	19770901 <--
NL 7900613	A	19790531	NL 1979-613	19790125 <--
PRAI CH 1969-1517	A	19690131		
CH 1969-13022	A	19690828		
US 1970-8071	A2	19700202		
US 1973-326188	A2	19730124		
US 1975-600127	A3	19750729		
OS MARPAT 88:22426				
GI				



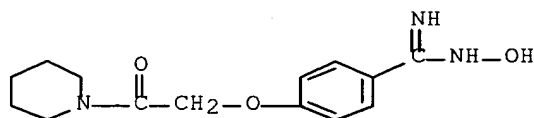
AB The title compds. I (R = H, Me, CH<sub>2</sub>Br; R<sub>1</sub> = piperidino, morpholino, 4-methylpiperidino, 4-(chlorophenyl-1-piperaziny), hexamethyleneimino, Et<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>NH, OH, OEt) were prepared in 50-70% yields by refluxing the corresponding carbonyl compds. II with H<sub>2</sub>NOH.HCl and Na<sub>2</sub>CO<sub>3</sub> in EtOH. II (R<sub>1</sub> as above) were prepared from the esters II (R<sub>1</sub> = OMe or OEt) or acid chlorides II (R<sub>1</sub> = Cl). I (R = H, Me; R<sub>1</sub> = NHOH) were prepared in 50-5% yields by refluxing NH<sub>2</sub>OH.HCl and Na in EtOH with 1 g-mol I (R = H, Me; R<sub>1</sub> = OEt) or 0.5 g-mol II (R's the same). I are antitussives. Thus, I (R = Me, R<sub>1</sub> = morpholino) had ED<sub>50</sub> □LD<sub>50</sub> of 0.040 (mouse), whereas that for codeine was 0.136.

IT 29936-90-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 29936-90-1 CAPLUS

CN Piperidine, 1-[[4-[(hydroxyamino)iminomethyl]phenoxy]acetyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1971:3409 CAPLUS Full-text

DN 74:3409

TI Phenoxyalkylcarboxylic acid derivatives

IN Mieville, Andre

PA Orchimed S. A.

SO Ger. Offen., 29 pp.

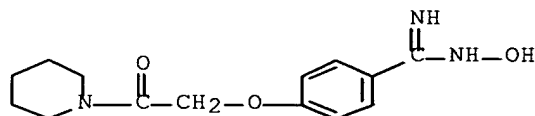
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2003430	A	19700903	DE 1970-2003430	19700127 <--
	DE 2003430	C3	19781207		
	CH 515873	A	19711130	CH 1969-1517	19690131 <--
	CH 543472	A	19731214	CH 1969-13022	19690828 <--
	FR 2035821	A5	19701224	FR 1969-39954	19691120 <--
	FR 2035821	B1	19740809		
	BE 742484	A	19700514	BE 1969-742484	19691201 <--
	GB 1268321	A	19720329	GB 1970-1268321	19700122 <--
	ES 376051	A1	19720516	ES 1970-376051	19700130 <--
	BR 7016496	D0	19730412	BR 1970-216496	19700130 <--
	JP 50000023	B	19750106	JP 1970-8055	19700130 <--
	CA 960670	A1	19750107	CA 1970-73559	19700130 <--
	SE 385872	B	19760726	SE 1970-1206	19700130 <--
	NL 7001424	A	19700804	NL 1970-1424	19700131 <--
	US 3914286	A	19751021	US 1970-8071	19700202 <--
	US 3907792	A	19750923	US 1973-326188	19730124 <--
	JP 51009745	B	19760330	JP 1973-122125	19731030 <--
	SE 7504490	A	19750418	SE 1975-4490	19750418 <--
	SE 414497	B	19800804		
	SE 414497	C	19801120		
	US 4058552	A	19771115	US 1975-600127	19750729 <--
	US 4233298	A	19801111	US 1977-829964	19770901 <--
	NL 7900613	A	19790531	NL 1979-613	19790125 <--
PRAI	CH 1969-1517	A	19690131		
	CH 1969-13022	A	19690828		
	US 1970-8071	A2	19700202		
	US 1973-326188	A2	19730124		
	US 1975-600127	A3	19750729		
GI	For diagram(s), see printed CA Issue.				
AB	The title, neurotropic and antiinflammatory compds. (I) were prep'd. from a phenol and an ω-halo acid or ester. Thus, 4-PrCOC <sub>6</sub> H <sub>4</sub> OH and ClCMe <sub>2</sub> CO <sub>2</sub> H was refluxed 8 hr in aqueous NaOH to give 65% I (X = O, R = Pr, R <sub>1</sub> = R <sub>2</sub> = Me, R <sub>3</sub> = H, n = 0). Approx. 25 analogs of I were prepared including I (R = R <sub>1</sub> = R <sub>2</sub> = H, X = :NOH, R <sub>3</sub> = morpholino, n = 0) and I (R = R <sub>1</sub> = R <sub>2</sub> = H, X = :NOH, R <sub>3</sub> = NHOH, n = 0).				
IT	29936-90-1P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)				
RN	29936-90-1 CAPLUS				
CN	Piperidine, 1-[[4-[(hydroxyamino)iminomethyl]phenoxy]acetyl]- (9CI) (CA INDEX NAME)				



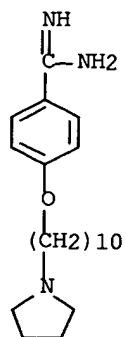
L8 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1961:143947 CAPLUS Full-text  
 DN 55:143947  
 OREF 55:27217a-f  
 TI Amidines

IN Sharp, Thomas Marvel; Solomon, William  
 PA Wellcome Foundation Ltd.  
 DT Patent  
 LA Unavailable  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 868552		19610517	GB	<--
AB	<p>The title compds. and their acid addn. salts, active against amoebiasis in exptl. animals, are prepared by standard reactions. Thus, 1 mole Na salt of p-HOC6- H4CN in 2250 ml. alc. and 350 ml. H2O is treated at reflux 6 hrs. with 1.99 equivs. 1,10-dibromodecane (I). After removal of most of the alc., water is added and the product extracted with 3 l. Et2O. The extract is dried (Na2SO4), the Et2O evaporated, the residue distilled to vapor temperature 200°/2.5 mm. to remove unreacted I, and the crude p-(10-bromodecyloxy)benzonitrile (201 g.) in 500 cc. alc. treated with 100 cc. Et2NH at reflux 6 hrs. The resultant p-(10-diethylaminodecyloxy)benzonitrile (II) is separated from nonbasic impurities by conventional acid-base ether extraction techniques and recrystd. as the HCl salt from acetone. Dry II.HCl (95 g.) is dissolved in 100 cc. absolute EtOH, the solution saturated with HCl at 20°, after removal of volatiles the residue dissolved in 100 cc. EtOH at 5°, mixed with 400 cc absolute EtOH saturated with dry NH3 at 20°, cooled to 5°, the mixture resatd. with dry NH3, kept at 20° 65 hrs.; nearly all volatile material removed at 20°, the residue treated with 2.5 l. H2O containing excess NaOH, extracted with 1 l. Et2O, the extract dried, and the ether removed to give p-(10-diethylaminodecyloxy)benzamidine; monosulfate m. 224-9° (EtOH-H2O). Similarly are prepared substituted benzamidines (substituent and m.p. of sulfate given): p-Et2N(CH2)6O, 249°; p-Et2N(CH2)7O, 226-31°; p-Et2N(CH2)8O, 221-7°; p-Et2N(CH2)9O, 231-3°; p-Et2N(CH2)12O, 224-7°; p-EtNH(CH2)7O, 271°; p-PrNH-(CH2)7O, 279-87°; p-Pr2N(CH2)7O, .simeq., 200°; p-BuNH(CH2)7O, 280-7°; p-iso-BuNH(CH2)7O, 280-5°; p-(7-piperidinoheptyloxy), 270-3°; p-(7-morpholinoheptyloxy), 229-33°; p-Me2N(CH2)8O, 215-20°; p-CH2:CHCH2NH-(CH2)8O, 218-23°; p-Bu2N(CH2)8O, 160-5°; p-(8-piperazinoctyloxy), 241-53°; p-[8-(N'-benzhydrylpiperazino)octyloxy], indefinite; 3-Me, 4-Et2N(CH2)10O, 215-19°; 3-Me, 4-Et2N(CH2)9O, 223-7°; 3-Cl, 4-Et2N(CH2)8O, 199202°; 3-Cl, 4-Et2N(CH2)9O, 210-13°; 3-Br, 4-Et2N-(CH2)10O, 179-85°; 3-MeO, 4-Et2N(CH2)7O, 262-70°; 3-MeO, 4-Et2N(CH2)8O, 219-22°; 3-MeO, 4-Et2N(CH2)9O, 223-8°; 3-MeO, 4-Et2N(CH2)10O, 227-33°; p-Me2N(CH2)10O, 186-92°; p-EtNH(CH2)10O, 194-200°; p-Pr2N(CH2)10O, 181-6°; p-(10-pyrrolidinodecyloxy), 215-28°; p-(10-morpholinodecyloxy), 160-78°. Also prepared were 6(7-diethylaminoheptyloxy)-2-naphthamidine sulfate, m. 258-62°, 6-(10-diethylaminodecyloxy)-2-naphthamidine sulfate, m. 232-4°, and 3,5-dimethyl-4-(10-diethylaminodecyloxy)-benzamidine di-HCl salt m. 160-5° (acetone).</p>				
IT	<p>113011-73-7P, Benzamidine, p-[10-(1-pyrrolidinyl)decyloxy]-, sulfate 115145-37-4P, Benzamidine, p-[8-(1-piperazinyl)octyloxy]-, sulfate 115163-83-2P, Benzamidine, p-(7-piperidinoheptyloxy)-, sulfate 122360-23-0P, Benzamidine, p-[8-(4-diphenylmethyl-1-piperazinyl)octyloxy]-, sulfate</p>				
	RL: PREP (Preparation)				
	(preparation of)				
RN	113011-73-7 CAPLUS				
CN	Benzamidine, p-[10-(1-pyrrolidinyl)decyloxy]-, sulfate (6CI) (CA INDEX NAME)				

CM 1

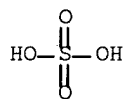
CRN 113011-72-6  
 CMF C21 H35 N3 O



CM 2

CRN 7664-93-9

CMF H2 O4 S



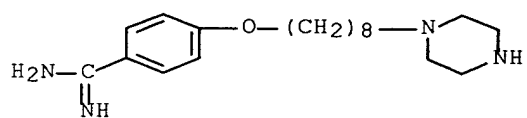
RN 115145-37-4 CAPLUS

CN Benzamidine, p-[8-(1-piperazinyl)octyloxy]-, sulfate (6CI) (CA INDEX NAME)

CM 1

CRN 115145-36-3

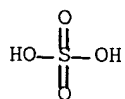
CMF C19 H32 N4 O



CM 2

CRN 7664-93-9

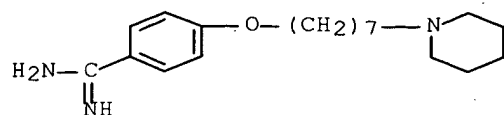
CMF H2 O4 S



RN 115163-83-2 CAPLUS  
 CN Benzamidine, p-(7-piperidinoheptyloxy)-, sulfate (6CI) (CA INDEX NAME)

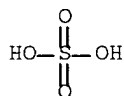
CM 1

CRN 115163-82-1  
 CMF C19 H31 N3 O



CM 2

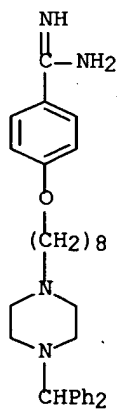
CRN 7664-93-9  
 CMF H2 O4 S



RN 122360-23-0 CAPLUS  
 CN Benzamidine, p-[8-(4-diphenylmethyl-1-piperazinyl)octyloxy]-, sulfate (6CI) (CA INDEX NAME)

CM 1

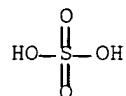
CRN 122360-22-9  
 CMF C32 H42 N4 O



CM 2

CRN 7664-93-9

CMF H2 O4 S



=&gt; d his

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L1 STRUCTURE UPLOADED  
 L2 15 S L1 SAM  
 L3 249 S L1 FULL  
 L4 STRUCTURE UPLOADED  
 L5 12 S L4 SAM  
 L6 300 S L4 FULL

FILE 'CAPLUS' ENTERED AT 11:36:40 ON 12 FEB 2007

L7 31 S L6  
 L8 21 S L7 AND PD< MAR 2003

=&gt; s l7 not l8

L9 10 L7 NOT L8

=&gt; s l3

L10 55 L3

=&gt; s l10 and pd&lt;mar 2003

23623826 PD&lt;MAR 2003

(PD&lt;20030300)

L11 48 L10 AND PD&lt;MAR 2003

=&gt; dis l11 1-48 bib abs hitstr

L11 ANSWER 1 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:640628 CAPLUS Full-text

DN 137:135063

TI Prourokinase and urokinase affinity ligands

IN Li, Rongxiu; Zhou, Xianwan; Xiao, Nengqing; Liu, Hailan; Wang, Shujing

PA Zhonglu Bio-Engineering Co., Ltd., Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 16 pp.

CODEN: CNXXEV

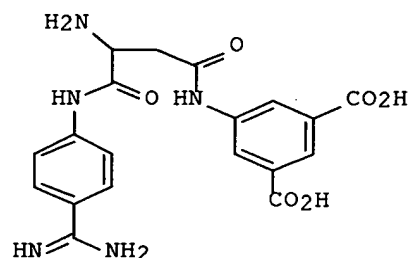
DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1298869	A	20010613	CN 1999-124231	19991209 <--
	CN 1100036	B	20030129		
PRAI	CN 1999-124231		19991209		

OS MARPAT 137:135063  
GI



I

AB Compns. such as I, 5-[3-amino-5-(4-amidinobenzyl)cyclohexylmethyl]isophthalic acid, 5-[4-chloro-6-(4-amidinophenylamino)-s-triazine-2-ylamino]isophthalic acid, or 5-[3-amino-5-(4-amidinophenyl)pentyl]isophthalic acid were prepared. The inhibitory effect of the compds. on urokinase activity is studied. The compds. are used as affinity ligand for purification of human prourokinase or urokinase or as antitumor agent.

IT 436084-42-3P

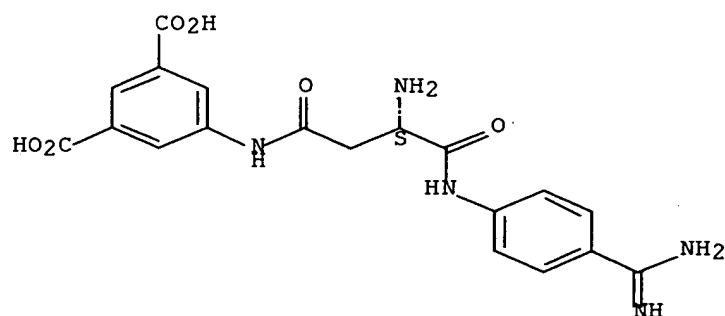
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prourokinase and urokinase affinity ligands)

RN 436084-42-3 CAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-[[[(3S)-3-amino-4-[[4-(aminoiminomethyl)phenyl]amino]-1,4-dioxobutyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L11 ANSWER 2 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:484891 CAPLUS Full-text

DN 137:32954

TI Synthesis of affinity ligand PU07 used for pro-urokinase and urokinase purification and inhibition

IN Li, Rongxiu; Zhou, Xianwan; Xiao, Nengqing

PA Shanghai Biology Engineering Research Center, Chinese Academy of Sciences, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 12 pp.

CODEN: CNXXEV



DT Patent  
LA Chinese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1301694	A	20010704	CN 1999-125745	19991224 <--
PRAI	CN 1999-125745		19991224		

AB The affinity ligand is the org. compd. contg. alk. group (R1) and two acid groups (R2 and R3). The alkaline group is amino, substituted amino, amidino, or substituted amidino. The acid group is carboxyl, sulfo group, or phosphoric group. The affinity ligand is preferably 5-[3-amino-4-(4-amidinophenylamino)-4-oxobutanoylamino]isophthalic acid, 5-[3-amino-5-(4-amidinobenzyl)cyclohexylmethyl]isophthalic acid, or 5-[3-amino-5-(4-amidinophenyl)pentyl]isophthalic acid,. Affinity ligand is prepared by reacting N2- Boc-aspartic acid with acetic anhydride, 4-amino benzamidine, 4-nitrophenol, 5-aminoisophthalic acid, and trifluoroacetic acid, sequentially. The affinity ligand is used as inhibitor for prourokinase or urokinase and for preparation of high-purity prourokinase or urokinase.

IT 436084-42-3DP, conjugates with agarose

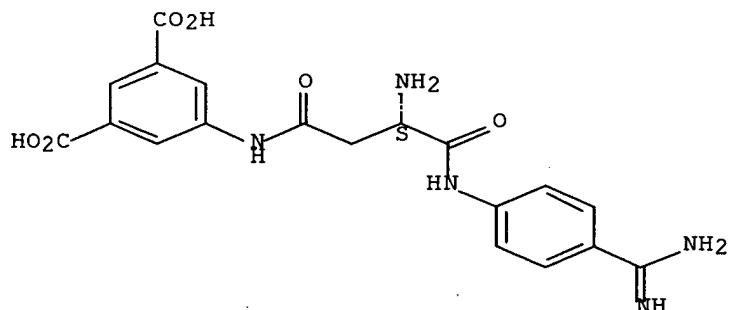
RL: BSU (Biological study, unclassified); NUU (Other use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis of affinity ligand PU07 used for pro-urokinase and urokinase purification and inhibition)

RN 436084-42-3 CAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-[[[(3S)-3-amino-4-[[4-(aminoiminomethyl)phenyl]amino]-1,4-dioxobutyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 436084-42-3P

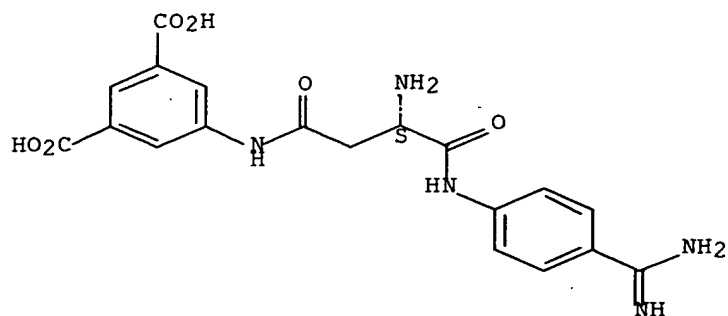
RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of affinity ligand PU07 used for pro-urokinase and urokinase purification and inhibition)

RN 436084-42-3 CAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-[[[(3S)-3-amino-4-[[4-(aminoiminomethyl)phenyl]amino]-1,4-dioxobutyl]amino]- (9CI) (CA INDEX NAME)

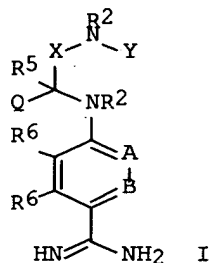
Absolute stereochemistry.



L11 ANSWER 3 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 2000:493304 CAPLUS Full-text  
 DN 133:101383  
 TI Chemical synthesis of serine protease inhibitors and their use to treat clotting disorders  
 IN Aliagas-Martin, Ignacio; Artis, Dean R.; Dina, Michael S.; Flygare, John A.; Goldsmith, Richard A.; Munroe, Regina A.; Olivero, Alan G.; Pastor, Richard; Rawson, Thomas E.; Robarge, Kirk D.; Sutherlin, Daniel P.; Weese, Kenneth J.; Zhou, Zihé; Zhu, Yan  
 PA Genentech, Inc., USA  
 SO PCT Int. Appl., 123 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000041531	A2	20000720	WO 2000-US673	20000111 <--
	WO 2000041531	A3	20010816		
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	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
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	EP 1144373	B1	20051019		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
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	ZA 2001005268	A	20020626	ZA 2001-5268	20010626 <--
	NO 2001003462	A	20010912	NO 2001-3462	20010712 <--
	US 2003212071	A1	20031113	US 2002-224114	20020819
	US 6919369	B2	20050719		

	US 2005186198	A1	20050825	US 2005-88511	20050324
PRAI	US 1999-115772P	P	19990113		
	US 1999-152029P	P	19990901		
	WO 2000-US673	W	20000111		
	US 2000-509104	A1	20000321		
	US 2002-224114	A1	20020819		
OS	MARPAT 133:101383				
GI					



AB Compds. having structure I (A,B = CH,CR<sub>3</sub>, N; X = C:O, (CR<sub>4a</sub>R<sub>4b</sub>)<sub>m</sub> and m = 1,2; Y = S(O)<sub>n</sub>R<sub>1</sub>, S(O)<sub>n</sub>NR<sub>2</sub>R<sub>2</sub>, S(O)<sub>n</sub>OR<sub>2</sub> and n = 1,2, or COR<sub>1</sub>, CSR<sub>1</sub>, COOR<sub>1</sub>, CONR<sub>2</sub>R<sub>2</sub>; Q,R<sub>1</sub> = (substituted)alkyl, aralkyl, heteroalkyl, etc.; R<sub>2</sub> = H, (substituted)alkyl, COR<sub>7</sub>, CNHR<sub>7</sub>, or the two NR<sub>2</sub> groups together form the group NCON; R<sub>3</sub> = C1-6-alkyl or -alkoxy, OH; R<sub>4a</sub>,R<sub>5</sub> = H, (substituted)alkyl, alkoxyalkyl, haloalkyl, etc.; R<sub>4b</sub> = H, (substituted)alkyl; R<sub>6</sub> = H, C1-6-alkyl or -alkyl-OR<sub>7</sub>, etc.; R<sub>7</sub> = H, C1-6-alkyl) are useful to inhibit serine protease enzymes, such as TF/factor VIIa, factor Xa, thrombin, and kallikrein. The compds preferably inhibit TF/factor VIIa about 1-3 orders of magnitude better than they inhibit factor Xa, thrombin, and/or kallikrein. These compds. may be used in methods of preventing and/or treating clotting disorders.

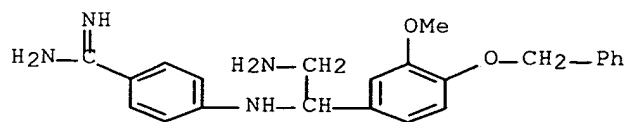
IT 284043-50-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(chemical synthesis of serine protease inhibitors and their use to treat clotting disorders)

RN 284043-50-1 CAPLUS

CN Benzenecarboximidamide, 4-[[2-amino-1-[3-methoxy-4-(phenylmethoxy)phenyl]ethyl]amino]- (9CI) (CA INDEX NAME)



L11 ANSWER 4 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

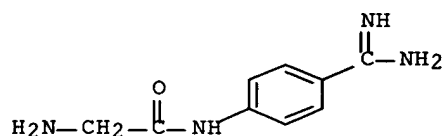
AN 1999:396478 CAPLUS Full-text

DN 131:199996

TI New RGD amphiphilic cyclic peptide and new RGD-mimetic constrained diketopiperazines

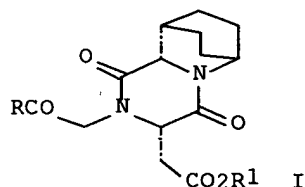
AU Pons, Jean-Francois; Sow, Mamadou; Lamaty, Frederic; Fauchere, Jean-Luc; Molla, Annie; Viallefont, Philippe; Lazaro, Rene

CS LAPP CNRS ESA 5075, Universite Montpellier II, Montpellier, 34095, Fr.  
 SO Peptides: Frontiers of Peptide Science, Proceedings of the American  
 Peptide Symposium, 15th, Nashville, June 14-19, 1997 (1999),  
 Meeting Date 1997, 176-177. Editor(s): Tam, James P.; Kaumaya, Pravin T.  
 P. Publisher: Kluwer, Dordrecht, Neth.  
 CODEN: 67UCAR  
 DT Conference  
 LA English  
 AB A symposium with five refs. Prepn. and activity of one diketopiperazine RGD  
 mimetic was given.  
 IT 240820-46-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of in the synthesis of RGD-mimetic constrained  
 diketopiperazines)  
 RN 240820-46-6 CAPLUS  
 CN Acetamide, 2-amino-N-[4-(aminoiminomethyl)phenyl]- (9CI) (CA INDEX NAME)



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1998:282727 CAPLUS Full-text  
 DN 129:16379  
 TI A constrained diketopiperazine as a new scaffold for the synthesis of  
 peptidomimetics  
 AU Pons, Jean-Francois; Fauchere, Jean-Luc; Lamaty, Frederic; Molla, Annie;  
 Lazaro, Rene  
 CS Laboratoire Aminoacides Peptides Proteines, Universite Montpellier II,  
 Montpellier, F-34095, Fr.  
 SO European Journal of Organic Chemistry (1998), (5), 853-859  
 CODEN: EJOCFK; ISSN: 1434-193X  
 PB Wiley-VCH Verlag GmbH  
 DT Journal  
 LA English  
 GI



AB As a new scaffold for peptidomimetic synthesis, the highly constrained,  
 bifunctional diketopiperazine I (R = OH, R1 = Me) was prepared by smooth N-

alkylation with BrCH<sub>2</sub>CO<sub>2</sub>CMe<sub>3</sub>. As a first application, the authors describe herein the synthesis of new peptidomimetics of the Arg-Gly-Asp (RGD) sequence. The product I [R = 4-(HN:CNH<sub>2</sub>)C<sub>6</sub>H<sub>4</sub>NHCOCH<sub>2</sub>NH, R<sub>1</sub> = H], which shows a selective platelet-aggregation inhibiting activity, can be used as a lead for the preparation of more potent products.

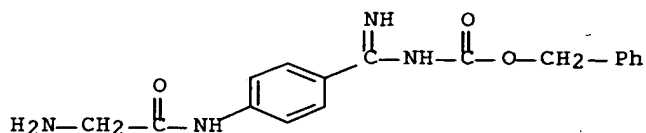
IT 207726-12-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and platelet-aggregation inhibiting activity of diketopiperazine-based peptidomimetics)

RN 207726-12-3 CAPLUS

CN Carbamic acid, [[4-[(aminoacetyl)amino]phenyl]iminomethyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



L11 ANSWER 6 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:267295 CAPLUS Full-text

DN 126:251170

TI Method for preparing combinatorial libraries of piperazines

IN Goodfellow, Val S.; McLeod, Donald A.; Gerrity, James Ivan; Laudeman, Christopher P.; Burkard, Michael R.

PA Cortech, Inc., USA

SO PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9710222	A1	19970320	WO 1996-US14569	19960911 <--
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI			
US 5811241	A	19980922	US 1995-527407	19950913 <--
AU 9671570	A	19970401	AU 1996-71570	19960911 <--
PRAI US 1995-527407	A	19950913		
WO 1996-US14569	W	19960911		

OS MARPAT 126:251170

AB Combinatorial libraries of N-substituted 1,4-piperazines and N-substituted 1,4-piperazinediones were prepared for assay in prespecified ligand binding or enzymic activity screens (no data). The piperazines were prepared by reductive alkylation on resin-bound amino acids, followed by bromoacetylation and amination, hydrolytic removal from the resin with cyclization to the piperazinedione, and reduction to the piperazine.

IT 188631-92-7 188631-97-2

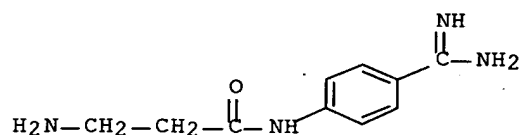
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of combinatorial libraries of piperazinediones and

piperazines)

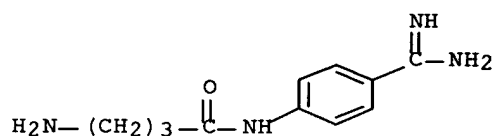
RN 188631-92-7 CAPLUS

CN Propanamide, 3-amino-N-[4-(aminoiminomethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 188631-97-2 CAPLUS

CN Butanamide, 4-amino-N-[4-(aminoiminomethyl)phenyl]- (9CI) (CA INDEX NAME)



L11 ANSWER 7 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:143455 CAPLUS Full-text

DN 116:143455

TI Terephthalamidine: past and future

AU Fisherman, Jason S.; Cline, Eileen M.; Plowman, Jacqueline; Quinn, Frank R.; Hawkins, Michael J.

CS Div. Cancer Treat., Natl. Cancer Inst., Bethesda, MD, 20892, USA

SO Investigational New Drugs (1991), 9(4), 295-303

CODEN: INNDDK; ISSN: 0167-6997

DT Journal; General Review

LA English

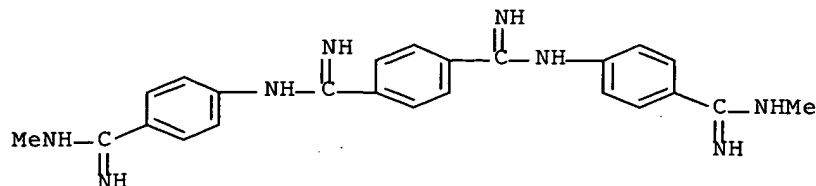
AB Terephthalamidine is one of 800 terephthalanilides and related compds. which were synthesized and tested preclin. in the late 1950's and early 1960's. Based upon their activity against murine leukemias, some of these agents were tested briefly in clin. trials at that time. Despite the observation of responses, the compds. were dropped because of severe and unusual neurotoxicity. More recently, terephthalamidine has been screened for antitumor activity and chosen for further clin. investigation by the NCI's Project for the Review of Old Drugs (P.R.O.D.) because of its novel structure and spectrum of preclin. activity. The current availability of a plasma assay for the drug permits further study of its clin. pharmacokinetics and pharmacodynamics and, perhaps, the development of improved scheduling strategies.

IT 2053-23-8, NSC 57155

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(antitumor activity and toxicity of)

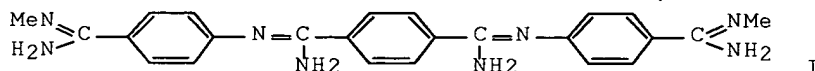
RN 2053-23-8 CAPLUS

CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)

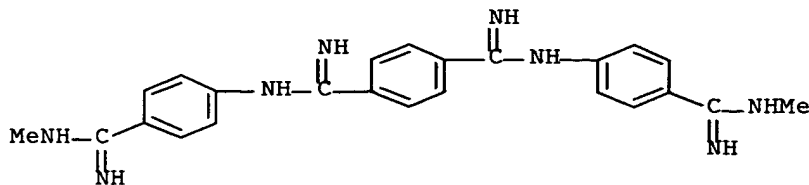


●4 HCl

L11 ANSWER 8 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1988:179462 CAPLUS Full-text  
 DN 108:179462  
 TI High-performance liquid chromatographic determination of terephthalamidine in plasma  
 AU Waud, William R.; Hill, Donald L.  
 CS South. Res. Inst., Birmingham, AL, 35255-5305, USA  
 SO Journal of Chromatography (1988), 425(1), 220-6  
 CODEN: JOCRAM; ISSN: 0021-9673  
 DT Journal  
 LA English  
 GI



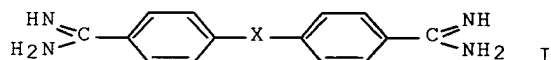
AB Terephthalamidine (I) was detd. in mouse plasma by HPLC on a  $\mu$ Bondapak C18 column with acetonitrile solvent containing 25 mM Na heptanesulfonate as ion-pairing agent and 14 mM TEA in aqueous solution pH 3.0; detection was achieved at 280 nm. The recovery of terephthalamidine from mouse plasma was 90.3% for concns. of drug from 0.3 to 30  $\mu$ g/mL. The lower limit of drug quantitation was 0.3  $\mu$ g/mL of plasma.  
 IT 2053-23-8  
 RL: ANT (Analyte); ANST (Analytical study)  
 (determination of, in plasma by HPLC)  
 RN 2053-23-8 CAPLUS  
 CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

L11 ANSWER 9 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1986:206932 CAPLUS Full-text  
 DN 104:206932  
 TI Antiprotozoal diamidines  
 IN Glazer, Edward A.  
 PA Pfizer Inc., USA  
 SO U.S., 13 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4546113	A	19851008	US 1983-484803	19830414 <--
	US 4624958	A	19861125	US 1985-770328	19850828 <--
	US 4732907	A	19880322	US 1986-889540	19860725 <--
PRAI	US 1983-484803	A3	19830414		
	US 1985-770328	A3	19850828		
OS	CASREACT 104:206932; MARPAT 104:206932				
GI					

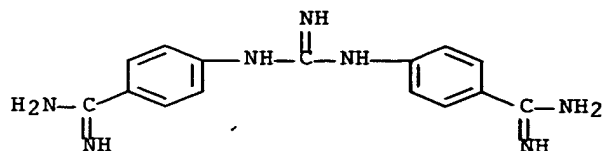


AB Eighteen title compds., including bis(amidinophenyl)propenes I (X = CH<sub>2</sub>CH:CH, CH<sub>2</sub>CMe:CH), were prepared Thus, 4-NCC6H<sub>4</sub>Ac and Me<sub>2</sub>CO<sub>3</sub> were condensed to give 68.6% 4-NCC6H<sub>4</sub>COCH<sub>2</sub>CO<sub>2</sub>Me, which was alkylated by 4-NCC6H<sub>4</sub>CH<sub>2</sub>Br to give 53.6% RCOCH(CH<sub>2</sub>R)CO<sub>2</sub>Me (R = 4-NCC6H<sub>4</sub>). Hydrolysis and decarboxylation of the latter gave 71-75% RCOCH<sub>2</sub>CH<sub>2</sub>R (R = as given), which was reduced by NaBH<sub>4</sub> to give RCH(OH)CH<sub>2</sub>CH<sub>2</sub>R. Dehydration of the alc. gave RCH:CHCH<sub>2</sub>R (II; R = as given), which reacted with EtOH-HCl to give II 2HCl [R = 4-EtOC(:NH)C<sub>6</sub>H<sub>4</sub>]]. Ammonolysis of the imidate with NH<sub>3</sub>-EtOH gave I (X = CH:CHCH<sub>2</sub>; III) as the dihydrochloride. At 50 mg/kg s.c. in lethally infected mice, III gave ≥80% protection against Trypanosome congolense and Babesia rodhaini.

IT 80498-63-1P 101341-00-8P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation of, as protozoacide)

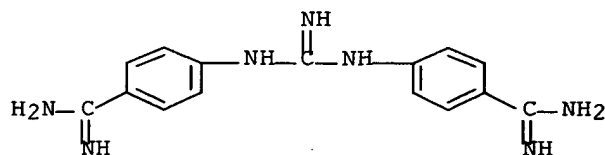
RN 80498-63-1 CAPLUS

CN Benzenecarboximidamide, 4,4'-(carbonimidoyldiimino)bis- (9CI) (CA INDEX NAME)





RN 101341-00-8 CAPLUS

CN Benzenecarboximidamide, 4,4'-(carbonimidoyldiimino)bis-, dihydrochloride  
(9CI) (CA INDEX NAME)

●2 HCl

L11 ANSWER 10 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1986:161460 CAPLUS Full-text

DN 104:161460

TI Toxicities derived from anti-tumor screening data

AU Quinn, Frank R.; Milne, George W. A.

CS Div. Cancer Treat., Natl. Cancer Inst., Bethesda, MD, 20892, USA

SO Fundamental and Applied Toxicology (1986), 6(2), 270-7

CODEN: FAATDF; ISSN: 0272-0590

DT Journal

LA English

AB The National Cancer Institute, in its search for effective anticancer agents, has determined quant. as well as qual. toxicities for a large number of chems. Probit anal. was used to derive lethalitys (LD50s) from data obtained in the process of testing anti-cancer agents in mice. These data were compared with those derived from testing those same agents in normal mice and it was found that a correlation exists between the 2 toxicities. Toxicities derived from NCI testing in normal animals were compared with published values and a similar correlation was found. LD50s were derived for all compds. tested in normal mice as well as those tested in mice bearing L1210 and P388 lymphocytic leukemias. Over 32,000 LD50s were derived for 22,597 unique compds.

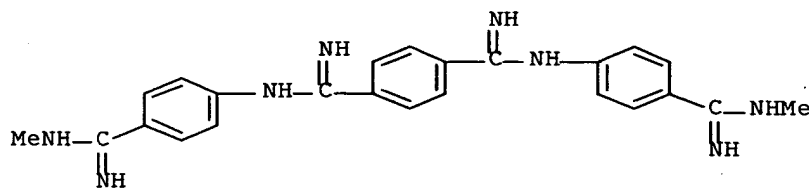
IT 2053-23-8

RL: PRP (Properties)

(toxicity of, to normal and tumor-bearing mice)

RN 2053-23-8 CAPLUS

CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)

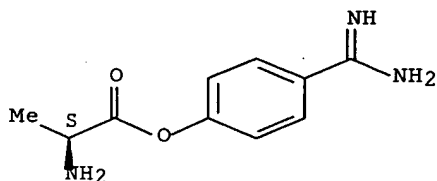


●4 HCl

L11 ANSWER 11 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

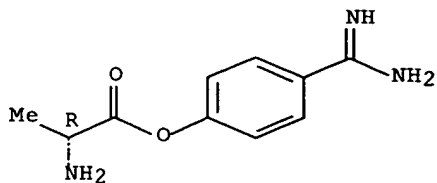
AN 1985:592059 CAPLUS Full-text  
 DN 103:192059  
 TI Development of "inverse substrates" for trypsin. Application to the studies on the structure and function of enzyme and to the design for biologically active compounds  
 AU Tanizawa, Kazutaka  
 CS Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan  
 SO Yakugaku Zasshi (1985), 105(5), 430-41  
 CODEN: YKKZAJ; ISSN: 0031-6903  
 DT Journal  
 LA Japanese  
 AB Esters of p-amidinophenol undergo efficient and specific tryptic hydrolysis. These esters are characterized by their linkage, i.e., the site-specific groups for the enzyme (charged amidinium) is not involved in their carbonyl groups, but in the leaving portion. Thus, these esters are named inverse substrates with respect to their structure and kinetic properties. Also, these esters are hydrolyzed by various proteases which show trypsin-like specificity. A facile procedure for the preparation of acyl-enzymes carrying nonspecific residue is described, and the potential usefulness of the inverse substrates concept is proposed.  
 IT 76223-66-0 76223-68-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with trypsin, kinetics of)  
 RN 76223-66-0 CAPLUS  
 CN L-Alanine, 4-(aminoiminomethyl)phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 76223-68-2 CAPLUS  
 CN D-Alanine, 4-(aminoiminomethyl)phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

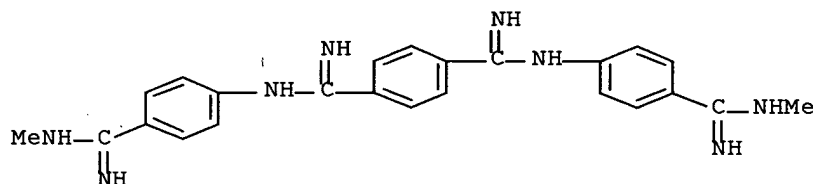


L11 ANSWER 12 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1985:17175 CAPLUS Full-text  
 DN 102:17175  
 TI Antitumor phthalanilides active in acute and chronic Trypanosoma brucei brucei murine infections  
 AU Nathan, Henry C.; Bacchi, Cyrus J.; Nichol, Charles A.; Duch, David S.; Mullaney, Elizabeth A.; Hutner, Seymour H.

CS Biol. Dep., Pace Univ., New York, NY, 10038, USA  
 SO American Journal of Tropical Medicine and Hygiene (1984), 33(5),  
 845-50  
 CODEN: AJTHAB; ISSN: 0002-9637  
 DT Journal  
 LA English  
 AB A series of phthalanilides and related compds. were tested on a short-term, fulminating, mouse infection of *T. brucei brucei* (EATRO 110 isolate). The most effective compound was 4,4'-bis(4-methylimidazolin-2-yl)-terephthalanilide [4315-44-0] which had a cure rate of 75% at 0.1 mg/kg and 100% at 0.5 mg/kg when administered as 3 single daily i.p. injections starting 24 h post-infection. Several related phthalanilides and similarly substituted ureas showed definite but lower activity. In tests with a chronic neurotropic *T. brucei brucei* isolate (TREU 667), cure rates greater than 90% were obtained with 10 or 25 mg/kg 4,4'-bis(4-methylimidazolin-2-yl)terephthalanilide. Cured animals survived for at least 200 days after infection with no evidence of recrudescence of parasitemia or of toxicity; blood or brain homogenates of cured animals were non-infective to immunosuppressed animals. These studies indicate that this series of compds., previously studied as antitumor agents, should be re-examined as potential trypanocides. Structure-activity relations are also discussed.

IT 2053-23-8  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (trypanosomicidal activity of)

RN 2053-23-8 CAPLUS  
 CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

L11 ANSWER 13 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1984:188226 CAPLUS Full-text  
 DN 100:188226  
 TI Preparative and analytical applications of CDI-mediated affinity chromatography  
 AU Hearn, Milton T. W.; Smith, Paul K.; Mallia, A. Krishna; Hermanson, Greg T.  
 CS St. Vincent's Sch. Med. Res., Univ. Melbourne, Melbourne, Australia  
 SO Affinity Chromatogr. Biol. Recognit., [Proc. Int. Symp.], 5th (1983), 191-6. Editor(s): Chaiken, Irwin M.; Wilchek, Meir; Parikh, Indu. Publisher: Academic, Orlando, Fla.  
 CODEN: 51ILA9  
 DT Conference  
 LA English  
 AB The use of 1,1'-carbonyldiimidazole (CDI)-activated gels for the affinity chromatog. purification of biol active compds. is discussed, the selection of

optimal immobilization levels with several biospecific ligands was examined, and examples are given of the use of CDI-activated supports for the preparative affinity purification of several enzymes and proteins (e.g., trypsin, protease, avidin, fibronectin).

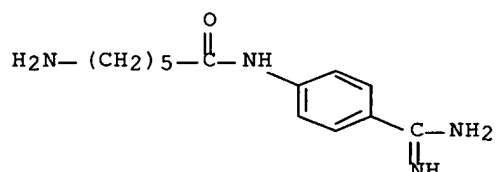
IT 61444-20-0

RL: ANST (Analytical study)

(immobilization of, on carbonyldiimidazole-activated Sepharose, trypsin binding in relation to)

RN 61444-20-0 CAPLUS

CN Hexanamide, 6-amino-N-[4-(aminoiminomethyl)phenyl]- (9CI) (CA INDEX NAME)



L11 ANSWER 14 OF 48 CAPLUS COPYRIGHT<sup>®</sup> 2007 ACS on STN

AN 1983:88995 CAPLUS Full-text

DN 98:88995

TI Substituted 4-amidinophenyl carboxylates and an anticomplement agent containing them

IN Fujii, Setsuro; Yaegashi, Takashi; Nakayama, Toyoo; Sakurai, Youjiro; Nunomura, Shigeki; Okutome, Toshiyuki

PA Torii and Co., Ltd., Japan

SO Fr. Demande, 132 pp.

CODEN: FRXXBL

DT Patent

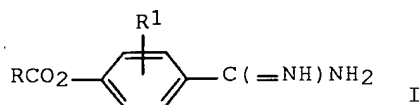
LA French

FAN.CNT 1

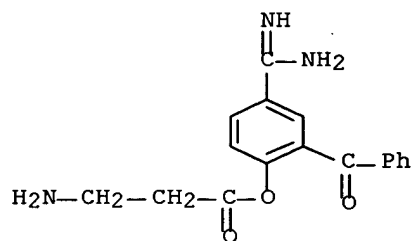
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2500825	A1	19820903	FR 1982-3258	19820226 <--
	FR 2500825	B1	19850823		
	JP 57142957	A	19820903	JP 1981-27974	19810227 <--
	JP 63060739	B	19881125		
	JP 58041855	A	19830311	JP 1981-140650	19810907 <--
	JP 02010823	B	19900309		
	GB 2095239	A	19820929	GB 1982-5699	19820226 <--
	GB 2095239	B	19850306		
	DE 3207033	A1	19820930	DE 1982-3207033	19820226 <--
	DE 3207033	C2	19840913		
	US 4514416	A	19850430	US 1984-611937	19840521 <--
	US 4570006	A	19860211	US 1984-664261	19841024 <--
PRAI	JP 1981-27974	A	19810227		
	JP 1981-140650	A	19810907		
	US 1982-350963	A1	19820222		
	US 1984-611937	A1	19840521		

OS CASREACT 98:88995; MARPAT 98:88995

GI

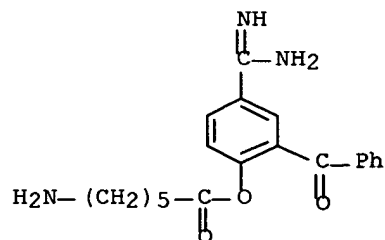


- AB Benzamidines I [R = alkyl, alkenyl, cycloalkyl, cycloalkylalkyl, amino- or guanidinoalkyl, 4-(aminomethyl)- or 4-(guanidinomethyl)cyclohexyl, (un)substituted Ph or phenylalkyl; R1 = alkyl, alkoxy, CO2H, carbalkoxy, halo, NO2, SO3H, PhCO, PhCONH, 4-[H2NC(:NH)]C6H4CONH] were prepared, and they exhibited complement inhibitor activity (formulations are given). Thus, 4,3-HO(PhCO)C6H3C(:NH)NH2.MeSO3H reacted with AcCl and pyridine to give the resp. I (R' = Me, R1 = PhCO).
- IT 84436-74-8P 84436-77-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and complement inhibitor activity of)
- RN 84436-74-8 CAPLUS
- CN  $\beta$ -Alanine, 4-(aminoiminomethyl)-2-benzoylphenyl ester, dihydrobromide (9CI) (CA INDEX NAME)



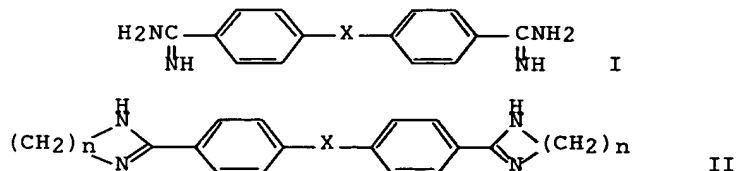
●2 HBr

- RN 84436-77-1 CAPLUS
- CN Hexanoic acid, 6-amino-, 4-(aminoiminomethyl)-2-benzoylphenyl ester, dihydrobromide (9CI) (CA INDEX NAME)



●2 HBr

AN 1982:135352 CAPLUS Full-text  
 DN 96:135352  
 TI Leishmania donovani, Plasmodium berghei, Trypanosoma rhodesiense:  
 antiprotozoal effects of some amidine types  
 AU Steck, Edgar A.; Kinnamon, Kenneth E.; Rane, Dora S.; Hanson, William L.  
 CS Div. Exp. Ther., Walter Reed Army Inst. Res., Washington, DC, 20012, USA  
 SO Experimental Parasitology (1981), 52(3), 404-13  
 CODEN: EXPAAA; ISSN: 0014-4894  
 DT Journal  
 LA English  
 GI

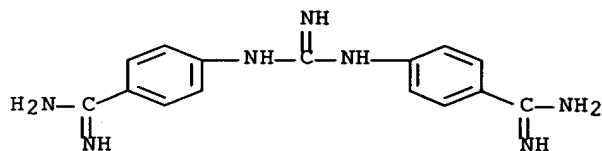


AB A series of 39 diamidines and cyclic congeners I [X = O, O(CH<sub>2</sub>)<sub>5</sub>O, S(CH<sub>2</sub>)<sub>5</sub>S, OC<sub>6</sub>H<sub>4</sub>O, furan, etc.] and II [X = O(CH<sub>2</sub>)<sub>5</sub>O, S(CH<sub>2</sub>)<sub>5</sub>S, furan, etc.; n = 2 or 3] was investigated for antiprotozoal effects in standard animal models. The test systems employed were the following: L. donovani in hamsters, P. berghei (trophozoite) in mice, and T. rhodesiense in mice. None of the compds. exhibited appreciable antimalaria or antileishmanial activity. One compound, WR 199,385 [2,5-bis(4-guanylphenyl)furan] [73819-26-8] had antitrypanosomal activity in the same range as pentamidine, and was deemed worthy of further study.

IT 80498-63-1  
 RL: PRP (Properties)  
 (antiprotozoal effect of)

RN 80498-63-1 CAPLUS

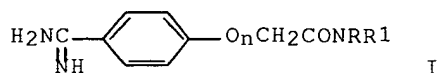
CN Benzenecarboximidamide, 4,4'-(carbonimidoyldiimino)bis- (9CI) (CA INDEX NAME)



L11 ANSWER 16 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1981:597192 CAPLUS Full-text  
 DN 95:197192  
 TI Synthetic inhibitors of serine proteinases. Part 27. Inhibition of amides by 4-amidinophenylacetic acid and 4-amidinophenoxyacetic acid  
 AU Walsmann, P.; Eppner, B.; Markwardt, F.; Stuerzebecher, J.; Wagner, G.  
 CS Inst. Pharmakol. Toxikol., Med. Akad. Erfurt, Erfurt, Ger. Dem. Rep.  
 SO Pharmazie (1981), 36(6), 446-7  
 CODEN: PHARAT; ISSN: 0031-7144  
 DT Journal

LA German  
GI



AB Structure-activity relations of the title compds. I (R = H, Me, or Ph; R1 = Me, Ph, etc.; or RR1 = pyrrolidinyl, morpholinyl, etc.; n = 0 or 1) with respect to plasmin [9001-90-5], thrombin [9002-04-4], and trypsin [9002-07-7] inhibitory activities were studied. The antitrypsin and antithrombin activities of the primary aliphatic amides were generally similar, whereas the aromatic and the secondary amides had a higher affinity for thrombin with the exception of I (RR1 = morpholinyl; n = 0) [79294-74-9] and I (R and R1 = Me; n = 0) [79494-23-8]. With the primary amides, a comparison of the affinities of these competitive inhibitors for the resp. enzymes showed the following: Ki-trypsin < Ki-thrombin ≤ Ki-plasmin. With the secondary amides, the following comparison was observed: Ki-thrombin .simeq. Ki-trypsin < Ki-plasmin. Structure-activity relations for these results were discussed.

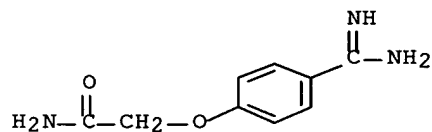
IT 79494-31-8D, derivs.

RL: BIOL (Biological study)

(plasmin and thrombin and trypsin inhibition by, structure in relation to)

RN 79494-31-8 CAPLUS

CN Acetamide, 2-[4-(aminoiminomethyl)phenoxy]- (9CI) (CA INDEX NAME)



L11 ANSWER 17 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1981:134908 CAPLUS Full-text

DN 94:134908

TI Inverse substrate. XIII. Analysis of latent properties of trypsin. Acyl trypsins derived from enantiomeric pairs of "inverse substrates"

AU Fujioka, Toshiyuki; Tanizawa, Kazutaka; Kanaoka, Yuichi

CS Fac. Pharm. Sci., Hokkaido Univ., Hokkaido, 060, Japan

SO Journal of Biochemistry (Tokyo, Japan) (1981), 89(2), 637-43

CODEN: JOBIAO; ISSN: 0021-924X

DT Journal

LA English

AB The kinetic behavior of trypsin towards p-amidinophenyl esters derived from a variety of amino acids and peptides, including D-amino acids, was analyzed. Deacylation rates of acyl trypsins carrying D-amino acid residues were determined for the 1st time by the use of these inverse substrates. The steric requirements of the catalytic site region of trypsin were analyzed by studying the deacylation reaction of enantiomeric pairs of inverse substrates.

The effects of chiral ligands on the deacylation process were also studied in connection with the chiral requirements of the active site.

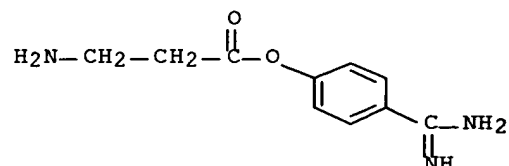
IT 76223-64-8 76223-66-0 76223-68-2  
76223-70-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(hydrolysis of, by trypsin, kinetics and stereospecificity of)

RN 76223-64-8 CAPLUS

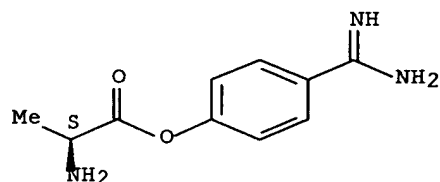
CN  $\beta$ -Alanine, 4-(aminoiminomethyl)phenyl ester (9CI) (CA INDEX NAME)



RN 76223-66-0 CAPLUS

CN L-Alanine, 4-(aminoiminomethyl)phenyl ester (9CI) (CA INDEX NAME)

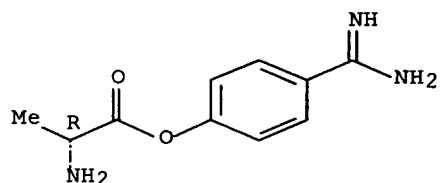
Absolute stereochemistry.



RN 76223-68-2 CAPLUS

CN D-Alanine, 4-(aminoiminomethyl)phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

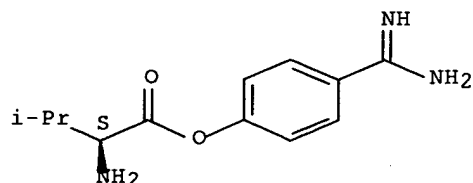


RN 76223-70-6 CAPLUS

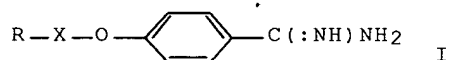
CN L-Valine, 4-(aminoiminomethyl)phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

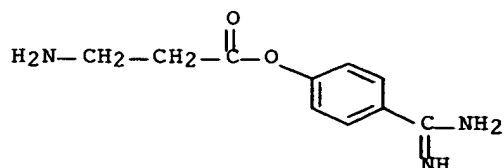




L11 ANSWER 18 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1981:47711 CAPLUS Full-text  
 DN 94:47711  
 TI Inverse substrates. IX. Amidinophenyl esters derived from amino acids and peptides: synthesis and properties as trypsin substrates  
 AU Fujioka, Toshiyuki; Tanizawa, Kazutaka; Nakayama, Hitoshi; Kanaoka, Yuichi  
 CS Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan  
 SO Chemical & Pharmaceutical Bulletin (1980), 28(6), 1899-905  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DT Journal  
 LA English  
 GI



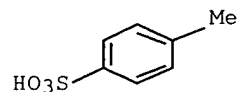
AB Title esters I (R = Bz, X =  $\beta$ -Ala, DL-Ala, DL-Phe; R = H, X =  $\beta$ -Ala, Ala, D-Ala, Val; R = Ac, X = Ala, D-Ala, Gly, Ala-Gly, D-Ala-Gly, Gly-Gly; R = dansyl, X = Phe, D-Phe), useful as trypsin substrates, were prepared by conventional solution methods. PhCH<sub>2</sub>O<sub>2</sub>C was used to block the amidino group, and it was cleaved by hydrogenolysis. Kinetic parameters were determined for the trypsin-catalyzed hydrolysis of I (R = Ac, X = Ala, D-Ala).  
 IT 76223-65-9P 76223-67-1P 76223-69-3P  
 76223-71-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 76223-65-9 CAPLUS  
 CN  $\beta$ -Alanine, 4-(aminoiminomethyl)phenyl ester, bis(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 76223-64-8  
 CMF C10 H13 N3 O2



CM 2

CRN 104-15-4

CMF C7 H8 O3 S



RN 76223-67-1 CAPLUS

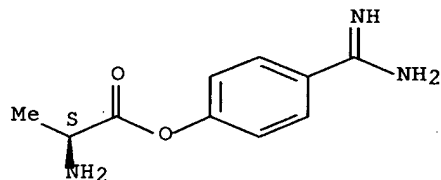
CN L-Alanine, 4-(aminoiminomethyl)phenyl ester, bis(4-methylbenzenesulfonate)  
(9CI) (CA INDEX NAME)

CM 1

CRN 76223-66-0

CMF C10 H13 N3 O2

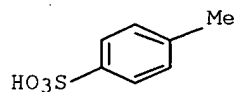
Absolute stereochemistry.



CM 2

CRN 104-15-4

CMF C7 H8 O3 S



RN 76223-69-3 CAPLUS

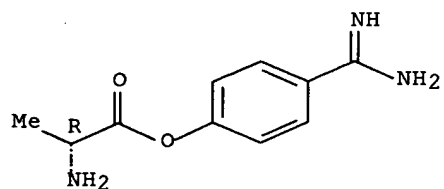
CN D-Alanine, 4-(aminoiminomethyl)phenyl ester, bis(4-methylbenzenesulfonate)  
(9CI) (CA INDEX NAME)

CM 1

CRN 76223-68-2

CMF C10 H13 N3 O2

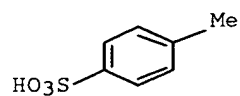
Absolute stereochemistry.



CM 2

CRN 104-15-4

CMF C7 H8 O3 S



RN 76223-71-7 CAPLUS

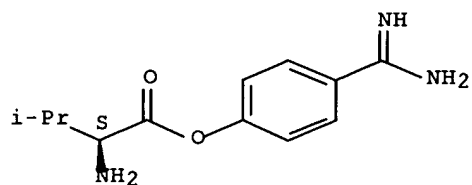
CN L-Valine, 4-(aminoiminomethyl)phenyl ester, bis(4-methylbenzenesulfonate)  
(9CI) (CA INDEX NAME)

CM 1

CRN 76223-70-6

CMF C12 H17 N3 O2

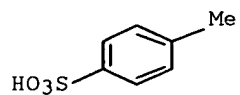
Absolute stereochemistry.



CM 2

CRN 104-15-4

CMF C7 H8 O3 S



L11 ANSWER 19 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1980:142390 CAPLUS Full-text

DN 92:142390

TI Application of the FCP-activation procedure to the synthesis of a biospecific adsorbent for trypsin

AU Gribnau, T. C. J.; Van Eekelen, C. A. G.; Tesser, G. I.; Nivard, R. J. F.

CS Dep. Org. Chem., Cathol. Univ., Nijmegen, 6525 ED, Neth.

SO Journal of Solid-Phase Biochemistry (1978), 3(4), 271-89  
CODEN: JSBIDL; ISSN: 0146-0641

DT Journal

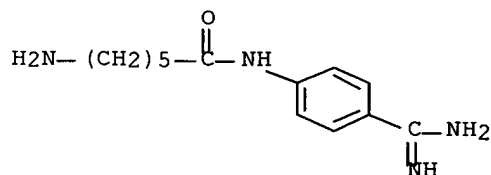
LA English

AB The synthesis of a biospecific adsorbent for trypsin was chosen as a model to investigate the applicability of 2,4,6-trifluoro-5-chloropyrimidine (FCP) activation in affinity chromatog., p-aminobenzamidine was chosen as a ligand, directly suitable for immobilization. The nonspecific binding properties of the 1st series of synthesized agarose derivs. were obviated either by FCP activation of the ligand instead of the matrix, or by modifying the initial FCP-activation procedure. The adsorbents prepared in this way, however, demonstrated no selectivity between trypsin and chymotrypsin. The introduction of  $\epsilon$ -aminocaproic acid as a spacer was ineffectual. These problems were solved by the application of glycylglycine as a spacer. The final affinity matrixes had a degree of substitution of .apprx.4  $\mu\text{mol}$  ligand/g gel (100  $\mu\text{mol}$  ligand/g dry adsorbent). The sp. activity of a current trypsin preparation was increased by 58% in a single cycle. The biospecificity of these adsorbents was demonstrated.

IT 73167-61-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(coupling of, to Sepharose, for trypsin affinity chromatog.)

RN 73167-61-0 CAPLUS

CN Hexanamide, 6-amino-N-[4-(aminoiminomethyl)phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L11 ANSWER 20 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1978:147947 CAPLUS Full-text

DN 88:147947

TI Purification of horse urinary kallikrein by affinity chromatography

AU Giusti, Elenir P.; Sampaio, C. A. M.; Prado, Eline S.

CS Dep. Biochem. Pharmacol., Esc. Paulista Med., Sao Paulo, Brazil

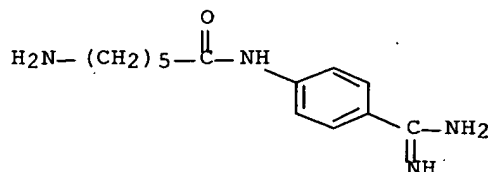
SO Agents and Actions (1978), 8(1-2), 164  
CODEN: AGACBH; ISSN: 0538-4818

DT Journal

LA English

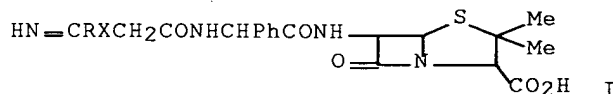
AB Horse urinary kallikrein was purified to homogeneity in 46% yield from 100 L horse urine by affinity chromatog. on p-( $\epsilon$ -aminocaproylamido)benzamidine-Sepharose. A mol. weight of 57,000 was estimated by gel filtration. The enzyme preparation was free of proteinases acting on methionyllsylbradykinin. Five active protein bands were found on electrofocusing in polyacrylamide gel containing 2% ampholine.

IT 61444-20-0D, Sepharose derivative  
 RL: BIOL (Biological study)  
 (kallikrein affinity chromatog. on)  
 RN 61444-20-0 CAPLUS  
 CN Hexanamide, 6-amino-N-[4-(aminoiminomethyl)phenyl]- (9CI) (CA INDEX NAME)



L11 ANSWER 21 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1977:517851 · CAPLUS Full-text  
 DN 87:117851  
 TI Broad spectrum antibiotics  
 IN Hamanaka, Ernest S.; Stam, John G.  
 PA Pfizer Inc., USA  
 SO U.S., 43 pp. Division of U.S. 3,951,952.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4025504	A	19770524	US 1975-640899	19751215 <--
	US 3951952	A	19760420	US 1973-424891	19731214 <--
	IN 141818	A1	19770423	IN 1975-CA1041	19750523 <--
PRAI	US 1972-277064	A2	19720802		
	US 1973-424891	A3	19731214		
	IN 1973-138817	A1	19730723		
OS	MARPAT 87:117851				
GI					



AB Penicillins including I [R = NH2, X = CH2 (II); R = Ph, 4-FC6H4, 4-ClC6H4, 4-BrC6H4, X = CH2] were prepared. Thus, ampicillin NEt3 salt was treated with H2NC(:NH)CH2CH2COCl to give 47.4% II. II had a min. inhibitory concentration against Escherichia coli 51A266 of 1.56 µg/mL and in vivo gave 20% protection against the same organism at 50 mg/kg orally or 80% protection at 50 mg/kg s.c.

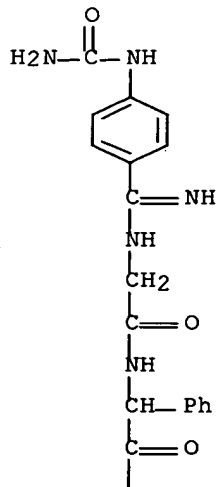
IT 57868-32-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 57868-32-3 CAPLUS

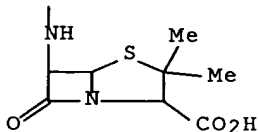
CN Glycinamide, N-[[4-[(aminocarbonyl)amino]phenyl]iminomethyl]glycyl-N-(2-carboxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-6-yl)-D-2-phenyl-

, [2S-(2 $\alpha$ , 5 $\alpha$ , 6 $\beta$ )]- (9CI) (CA INDEX NAME)

PAGE 1-A



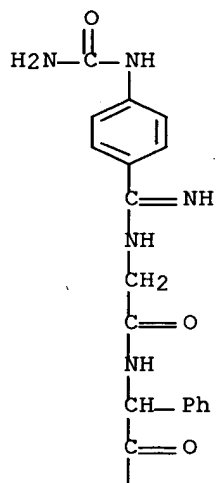
PAGE 2-A



L11 ANSWER 22 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1977:484989 CAPLUS Full-text  
 DN 87:84989  
 TI Broad spectrum antibiotics  
 IN Hamanaka, Ernest S.; Stam, John G.  
 PA Pfizer Inc., USA  
 SO U.S., 41 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 4

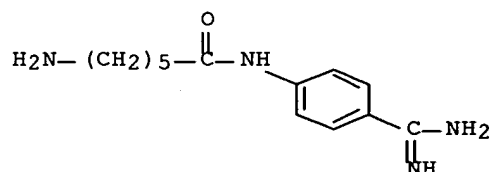
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PI	US 4025506	A	19770524	US 1975-640572	19751215 <--
	US 3951952	A	19760420	US 1973-424891	19731214 <--
	IN 141818	A1	19770423	IN 1975-CA1041	19750523 <--
PRAI	US 1972-277064	A2	19720802		
	US 1973-424891	A3	19731214		
	IN 1973-138817	A1	19730723		
OS	MARPAT 87:84989				
GI					

PAGE 1-A

CC1(C)S[C@@H]2C(=O)N[C@H]2C1C(=O)O

Page 91 of 129

AU Baratti, J.; Maroux, S.  
 CS Cent. Biochem. Biol. Mol., Marseille, Fr.  
 SO Biochimica et Biophysica Acta, Enzymology (1976), 452(2), 488-96  
 CODEN: BBEZAD; ISSN: 0924-1086  
 DT Journal  
 LA English  
 AB The active site of porcine enteropeptidase (EC 3.4.21.9) was investigated to characterize better both catalytic and binding sites. The participation of a serine and a histidine residue in the catalytic process was fully confirmed; the 2 residues were located on the light chain of the enzyme. The binding site was composed of  $\geq 2$  subsites, S1 and S2. The subsite S1 (similar to the trypsin-binding site) was responsible for the interactions with the small substrates of trypsin and the lysine side chain of trypsinogen, whereas subsite S2 (probably a cluster of lysines) was responsible for the interactions with the polyanionic sequence found in all trypsinogens. Binding of substrate by subsite S2 led to an increased efficiency of the catalytic site which can be correlated to the known high specificity of enteropeptidase.  
 IT 61444-20-0  
 RL: BIOL (Biological study)  
 (enteropeptidase inhibition by)  
 RN 61444-20-0 CAPLUS  
 CN Hexanamide, 6-amino-N-[4-(aminoiminomethyl)phenyl]- (9CI) (CA INDEX NAME)

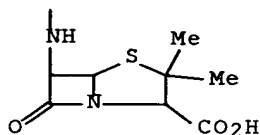
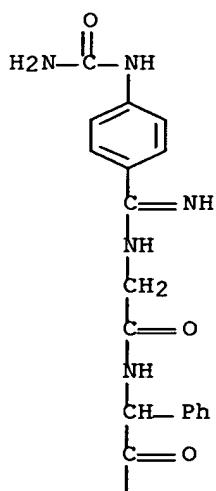


L11 ANSWER 24 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1975:458808 CAPLUS Full-text  
 DN 83:58808  
 TI 6-[ $\alpha$ -(Amidino- and imidoylaminoalkanoylamino)aracylamino]penicillanic acids and their preparation  
 IN Hamanaka, Ernest S.; Stam, John G.  
 PA Pfizer Inc., USA  
 SO S. African, 102 pp.  
 CODEN: SFXAB  
 DT Patent  
 LA English  
 FAN.CNT 4

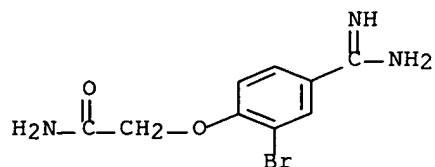
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PI	ZA 7400509	A	19741224	ZA 1974-509	19740124 <--
	US 3951952	A	19760420	US 1973-424891	19731214 <--
	GB 1462421	A	19770126	GB 1974-1673	19740114 <--
	SE 7400501	A	19750616	SE 1974-501	19740115 <--
	SE 421797	B	19820201		
	SE 421797	C	19820513		
	AU 7464636	A	19750717	AU 1974-64636	19740117 <--
	IN 139932	A1	19760821	IN 1974-CA131	19740118 <--
	DE 2403512	A1	19750619	DE 1974-2403512	19740125 <--
	DE 2403512	C2	19830113		
	FI 7400226	A	19750615	FI 1974-226	19740128 <--



FI 62840	B	19821130		
FI 62840	C	19830310		
BE 810266	A4	19740729	BE 1974-1005676	19740129 <--
NL 7401174	A	19750617	NL 1974-1174	19740129 <--
NO 7400281	A	19750617	NO 1974-281	19740129 <--
NO 145794	B	19820222		
NO 145794	C	19820609		
DK 7400455	A	19750811	DK 1974-455	19740129 <--
DK 150856	B	19870706		
DK 150856	C	19871116		
HU 167158	B	19750828	HU 1974-PI405	19740129 <--
ES 422732	A2	19770701	ES 1974-422732	19740129 <--
CS 194205	B2	19791130	CS 1974-593	19740129 <--
RO 67596	A1	19800215	RO 1974-77437	19740129 <--
AT 7400733	A	19750315	AT 1974-733	19740130 <--
AT 326821	B	19751229		
DD 113008	A6	19750512	DD 1974-176275	19740130 <--
FR 2254310	A2	19750711	FR 1974-3093	19740130 <--
JP 50089393	A	19750717	JP 1974-11947	19740130 <--
CH 596218	A5	19780315	CH 1974-1294	19740130 <--
JP 57056483	A	19820405	JP 1981-114324	19810721 <--
JP 60048519	B	19851028		
JP 58074688	A	19830506	JP 1982-161538	19820916 <--
JP 60043072	B	19850926		
PRAI US 1973-424891	A	19731214		
US 1972-277064	A2	19720802		
GI	For diagram(s), see printed CA Issue.			
AB	<p>Approx. 200 penicillins I (R = 3,5-Br<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 3-thenyl, 4-pyridyl, etc.; R<sub>1</sub>, R<sub>2</sub> = H, alkyl; R<sub>3</sub> = Ph, p-HOC<sub>6</sub>H<sub>4</sub>, 2-, 3-thienyl; X = CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, CHMe, etc.) were prepared from RC(:NR<sub>1</sub>)OR<sub>4</sub> (R<sub>4</sub> = Me, Et) and 6-[2-aryl-2-(aminoalkanoylamino)acetamido]penicillanates. E.g., 3,4-O<sub>2</sub>N(HO)C<sub>6</sub>H<sub>3</sub>C(:NH)OEt and 6-[D-2-phenyl-2-(aminoacetamido)acetamido]penicillanic acid gave I [R = 3,4-O<sub>2</sub>N(HO)C<sub>6</sub>H<sub>3</sub>, R<sub>1</sub> = R<sub>2</sub> = H, R<sub>3</sub> = Ph, X = CH<sub>2</sub>]. The min. inhibitory concns. of I (R<sub>1</sub> = R<sub>2</sub> = H, R<sub>3</sub> = Ph, X = CH<sub>2</sub>, R = p-R<sub>5</sub>C<sub>6</sub>H<sub>4</sub>, R<sub>5</sub> = H, F, Cl, Br) were 0.39-25 µg/ml against Staphylococcus aureus, Pseudomonas aeruginosa, Klebsiella pneumoniae, Escherichia coli, etc. Antibiotic formulations of I were described.</p>			
IT	57868-32-3P			
	RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and NMR of)			
RN	57868-32-3 CAPLUS			
CN	<p>Glycinamide, N-[[4-[(aminocarbonyl)amino]phenyl]iminomethyl]glycyl-N-(2-carboxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-6-yl)-D-2-phenyl-, [2S-(2α,5α,6β)]- (9CI) (CA INDEX NAME)</p>			

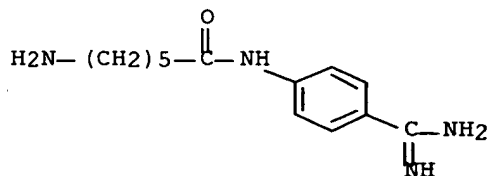


- L11 ANSWER 25 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1975:400248 CAPLUS Full-text  
 DN 83:248  
 TI Synthesis of isoesteres of p-amidinophenylpyruvic acid. Inhibitors of trypsin, thrombin, and pancreatic kallikrein  
 AU Loeffler, Larry J.; Mar, Eng-Chun; Geratz, J. D.; Fox, Lynda B.  
 CS Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, USA  
 SO Journal of Medicinal Chemistry (1975), 18(3), 287-92  
 CODEN: JMCMAR; ISSN: 0022-2623  
 DT Journal  
 LA English  
 GI For diagram(s), see printed CA Issue.  
 AB Of a series of 31 amino and amidino acid title analogs prepd. and tested as inhibitors of trypsin [9002-07-7], thrombin [9002-04-4], and kallikrein [9001-01-8], several were active, and Et 4-amidino-2-iodophenoxyacetate- HCl (I) [55197-50-7] was about as potent as p-amidinophenylpyruvic acid [10290-63-8]. I was the most effective of the title compds. in blocking the clotting activity of human plasma. Structure-activity relations are discussed.  
 IT 55197-57-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and anticoagulant and proteolytic enzyme inhibition activity of)  
 RN 55197-57-4 CAPLUS  
 CN Acetamide, 2-[4-(aminoiminomethyl)-2-bromophenoxy]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L11 ANSWER 26 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1975:27744 CAPLUS Full-text  
 DN 82:27744  
 TI Human plasma kallikrein. Purification and preliminary characterization  
 AU Sampaio, Claudio; Wong, Show-Chu; Shaw, Elliott  
 CS Biol. Dep., Brookhaven Natl. Lab., Upton, NY, USA  
 SO Archives of Biochemistry and Biophysics (1974), 165(1), 133-9  
 CODEN: ABBIA4; ISSN: 0003-9861  
 DT Journal  
 LA English  
 AB A method is described for the convenient purifn of the protease plasma kallikrein from human Cohn fraction IV-1. The enzyme was produced by endogenous activation after acid treatment to remove an inhibitor and was concentrated by the successive use of affinity adsorbents prepared by the immobilization of soybean trypsin inhibitor and aminobenzamidine. The esterase- and kinin-producing activities were enriched .apprx.1100-fold from fraction IV-1. Several properties of plasma kallikrein strengthen the impression that it is related to trypsin, namely, competitive inhibition by benzamidine and the formation of a stable p-guanidinobenzoyl acyl enzyme intermediate. Inactivation by affinity labeling with N $\alpha$ -benzyloxycarbonyl-L-lysylchloromethane was successful in contrast to that with N $\alpha$ -tosyl-L-lysylchloromethane.  
 IT 53857-82-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 53857-82-2 CAPLUS  
 CN Hexanamide, 6-amino-N-[4-(aminoiminomethyl)phenyl]-, dihydrochloride (9CI)  
 (CA INDEX NAME)



●2 HCl

L11 ANSWER 27 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1971:440457 CAPLUS Full-text  
 DN 75:40457  
 TI Antiviral 1-phenyl-3-alkylguanidines  
 IN Swallow, Douglas L.  
 PA Imperial Chemical Industries Ltd.  
 SO Ger. Offen., 13 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2052128	A	19710429	DE 1970-2052128	19701023 <--
	GB 1295088	A	19721101	GB 1969-52261	19691024 <--
	ZA 7006890	A	19710728	ZA 1970-6890	19701009 <--
	NL 7015457	A	19710427	NL 1970-15457	19701022 <--
	FR 2070160	A5	19710910	FR 1970-38433	19701023 <--
	FR 2070160	B1	19740621		
PRAI	GB 1969-52261	A	19691024		

GI For diagram(s), see printed CA Issue.

AB Compns. for the prophylaxis or treatment of human catarrhal diseases containing I were reported. A typical composition consisted of sucrose 88, Mg stearate 3, gum arabic 3, H<sub>2</sub>O 3, and I (R = p-Cl, n = 0, R<sub>1</sub> = iso-Pr) (II) 5 g, which were mixed and pressed into hard morsels of 50 mg II content. Also used were I (R = p-Cl, (X)n = NH, R<sub>1</sub> = iso-Pr or Bu).

IT 32972-58-0 33007-98-6

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (virucide)

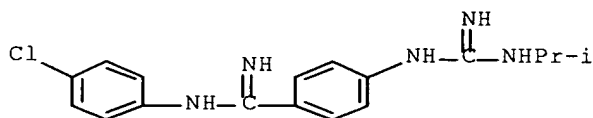
RN 32972-58-0 CAPLUS

CN Glucuronic acid, compd. with 1-[p-[(p-chlorophenyl)amidino]phenyl]-3-isopropylguanidine, D- (8CI) (CA INDEX NAME)

CM 1

CRN 33007-98-6

CMF C17 H20 Cl N5

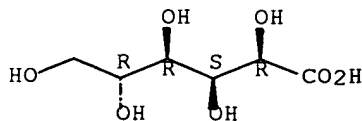


CM 2

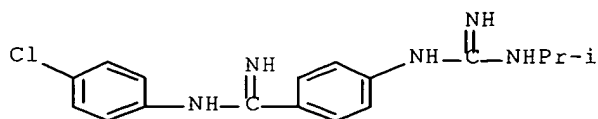
CRN 526-95-4

CMF C6 H12 O7

Absolute stereochemistry.



RN 33007-98-6 CAPLUS  
 CN Guanidine, 1-[p-[(p-chlorophenyl)amidino]phenyl]-3-isopropyl- (8CI) (CA INDEX NAME)



L11 ANSWER 28 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1971:435490 CAPLUS Full-text

DN 75:35490

TI Antiviral guanidine and thiourea derivatives

IN Swallow, Douglas L.

PA Imperial Chemical Industries Ltd.

SO Ger. Offen., 57 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2052132	A	19710506	DE 1970-2052132	19701023 <--
	GB 1291994	A	19721004	GB 1969-52262	19691024 <--
	ZA 7006889	A	19710728	ZA 1970-6889	19701009 <--
	NL 7015458	A	19710427	NL 1970-15458	19701022 <--
	FR 2070161	A5	19710910	FR 1970-38434	19701023 <--
	FR 2070161	B1	19740621		
	AT 302349	B	19721010	AT 1970-9576	19701023 <--
	AT 303058	B	19721110	AT 1971-9830	19701023 <--
	AT 304565	B	19730110	AT 1971-9831	19701023 <--
	ES 384873	A1	19730316	ES 1970-384873	19701024 <--
PRAI	GB 1969-52262	A	19691024		

AB Title aromatic antiviral compds. are prepd. As an example, isopropyl isothiocyanate is added to a solution of 3-(p-aminophenyl)-1-(p-chlorophenyl)guanidine.2HCl in pyridine and stirred 72 hr at ambient temperature to yield 1-(p-chlorophenyl) - 3 - [p - (3 - isopropylthioureido)phenyl]guanidine.HCl. Over 100 addnl. examples are described.

IT 32497-63-5P 32497-64-6P 32497-65-7P

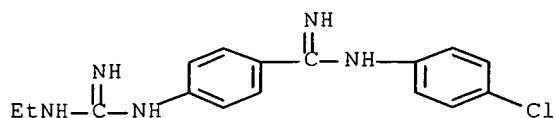
32497-66-8P 32497-67-9P 32497-68-0P

32502-74-2P 32502-75-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

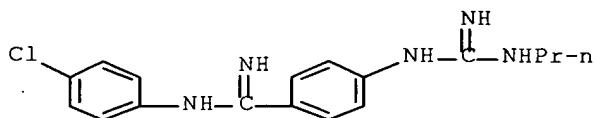
RN 32497-63-5 CAPLUS

CN Benzamidine, N-(p-chlorophenyl)-p-(3-ethylguanidino)- (8CI) (CA INDEX NAME)



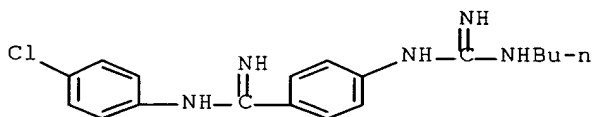
RN 32497-64-6 CAPLUS

CN Benzamidinium, N-(p-chlorophenyl)-p-(3-propylguanidino)- (8CI) (CA INDEX NAME)



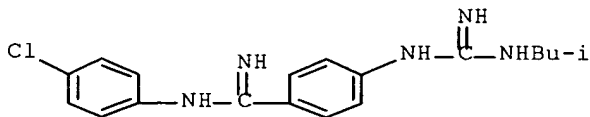
RN 32497-65-7 CAPLUS

CN Benzamidinium, p-(3-butylguanidino)-N-(p-chlorophenyl)- (8CI) (CA INDEX NAME)



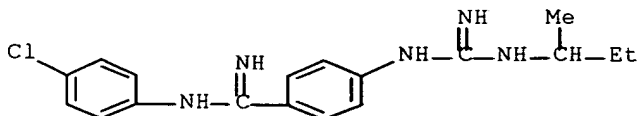
RN 32497-66-8 CAPLUS

CN Benzamidinium, N-(p-chlorophenyl)-p-(3-isobutylguanidino)- (8CI) (CA INDEX NAME)



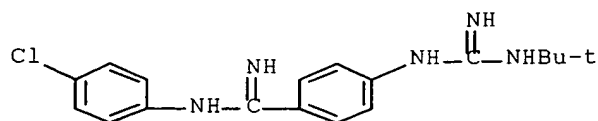
RN 32497-67-9 CAPLUS

CN Benzamidinium, p-(3-sec-butylguanidino)-N-(p-chlorophenyl)- (8CI) (CA INDEX NAME)



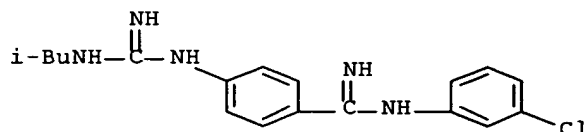
RN 32497-68-0 CAPLUS

CN Benzamidinium, p-(3-tert-butylguanidino)-N-(p-chlorophenyl)- (8CI) (CA INDEX NAME)



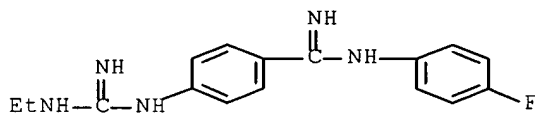
RN 32502-74-2 CAPLUS

CN Benzamidine, N-(m-chlorophenyl)-p-(3-isobutylguanidino)- (8CI) (CA INDEX NAME)



RN 32502-75-3 CAPLUS

CN Benzamidine, p-(3-ethylguanidino)-N-(p-fluorophenyl)- (8CI) (CA INDEX NAME)



L11 ANSWER 29 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1971:74639 CAPLUS Full-text

DN 74:74639

TI Effect of coplanar hetero-oligobases on the metabolisms of nucleic acids and nucleotides in Ehrlich ascites cells

AU Schneider, Friedhelm; Warnecke, Peter; Haerlin, Ruediger

CS Physiol.-Chem. Inst., Univ. Tuebingen, Tuebingen, Fed. Rep. Ger.

SO Arzneimittel-Forschung (1970), 20(12), 1942-5

CODEN: ARZNAD; ISSN: 0004-4172

DT Journal

LA German

GI For diagram(s), see printed CA Issue.

AB The cytostatic effect of 8 coplanar heterooligobases on Ehrlich ascites tumor cells was due to inhibition of RNA synthesis, inhibition of nucleoside transport into intact cells, and inhibition of thymidine incorporation by a cell-free DNA polymerase system. The bases did not affect DNA synthesis in the intact cells. I and II were the most effective compds.

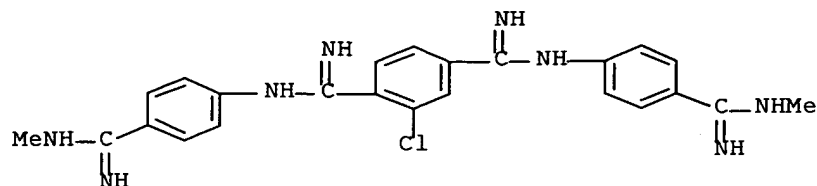
IT 10605-64-8 13239-45-7

RL: BIOL (Biological study)

(nucleic acids and nucleotides metabolism by neoplasms in response to)

RN 10605-64-8 CAPLUS

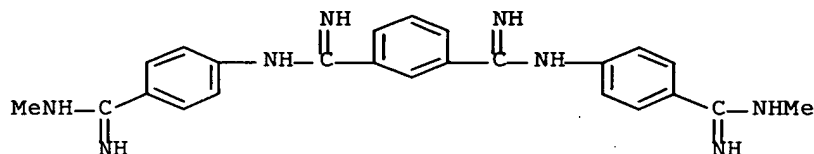
CN 1,4-Benzenedicarboximidamide, 2-chloro-N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 13239-45-7 CAPLUS

CN 1,3-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

L11 ANSWER 30 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1969:95108 CAPLUS Full-text

DN 70:95108

TI Potential antitumor agents. X. Bisquaternary salts

AU Cain, Bruce F.; Atwell, G. J.; Seelye, Ralph N.

CS Cornwall Geriatric Hosp., Auckland, N. Z.

SO Journal of Medicinal Chemistry (1969), 12(2), 199-206

CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

AB The biol. activity of a variety of cationic agents against exptl. leukemias and trypanosomal species may be dependent on (a) lipophilic-hydrophilic balance of the agents, (b) charge separation, (c) sufficient contact binding, this requirement varying with the biol. test system involved, (d) a close over-all approach to planarity, and (e) capacity to fit a curved site of approx. 40 Å. in diameter That migration of these materials may be transport mediated is discussed. It is shown that a site equivalent to the minor groove in a helical polynucleotide would match the structural requirements.

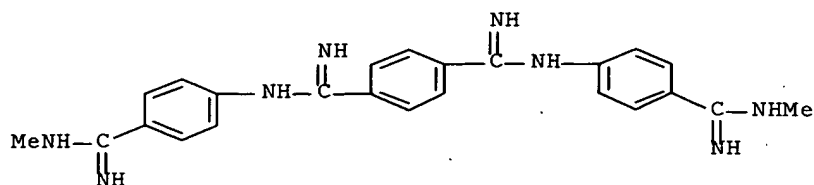
IT 537-51-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(biol. activity of)

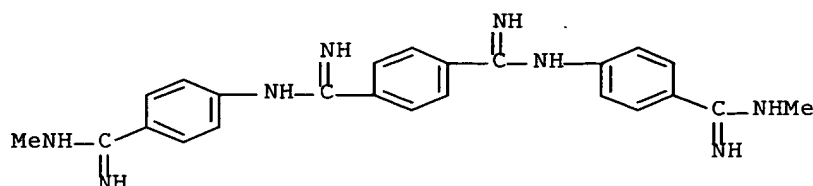
RN 537-51-9 CAPLUS

CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]- (9CI) (CA INDEX NAME)





- L11 ANSWER 31 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1968:57568 CAPLUS Full-text  
 DN 68:57568  
 TI Antimicrobial action of terephthalanilide and related drugs  
 AU Pine, Martin J.  
 CS Roswell Park Mem. Inst., Buffalo, NY, USA  
 SO Biochemical Pharmacology (1968), 17(1), 75-86  
 CODEN: BCPCA6; ISSN: 0006-2952  
 DT Journal  
 LA English  
 GI For diagram(s), see printed CA Issue.  
 AB The drug, 2-chloro-4',4"-bis(2-imidazolin-2-yl)terephthalanilide-2HCl (NSC 38280) (I), and other polycationic growth inhibitors of *Escherichia coli* were examined with particular reference to their inhibition of protein synthesis. Of nine polycationic drugs studied, I and 3 congeners, as well as spermine and stilbamidine, were found to be inhibitors of protein synthesis on the basis of their ability to uncouple the regulatory control of protein synthesis upon RNA synthesis. At a high level, (10 µg./0.35 ml.), I inhibits the incorporation of isoleucine-U-14C into polypeptide in a cell-free system derived from *E. coli*. In this system, the soluble fraction and, to a lesser extent, the ribosomes are sensitive to the drug. I does not cause the release of nascent protein from ribosomes in vitro. In intact cells, I slightly lowers the charging of amino acids upon transfer RNA, in contrast to a slight increase encountered on treatment with chloramphenicol. Cellular uptake of I is heterogeneous, being dependent in part on an active transport sensitive to 2,4-dinitrophenol administration, and in part on an adsorption which increases upon lowering of temperature. A fraction of the uptake is resistant to washing of intact cells and is also resistant to dialysis of crushed cell preps. Upon cellular fractionation, the affinity of I appears to be poor on the ribosomes, but high on a component released from the ribosomes upon washing. Although I inhibits growth and incorporation into protein in the intact cell immediately, it becomes bactericidal only after 20 min. The inhibitory effects are reversed to differing extents by polyamines, particularly by spermine. No consistent correlation was found between the degree of reversal of protein synthesis and reversal of lethality. Inhibition of protein synthesis may be the first event in the action of I, but cell death ensues upon the development of a more general, pervasive physiol. action of the drug. The growth-inhibiting effects of several polycationic drugs on the trypanosomid flagellate, *Crithidia fasciculata*, are reported. 20 references.  
 IT 2053-23-8  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (bactericidal action of)  
 RN 2053-23-8 CAPLUS  
 CN 1,4-Benzenedicarboximidamide, N,N'-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

L11 ANSWER 32 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1967:65301 CAPLUS Full-text  
 DN 66:65301  
 TI Phthalamidine compounds  
 IN Hirt, Rudolf  
 PA Dr. A. Wander, A.-G.  
 SO U.S., 4 pp.  
 CODEN: USXXAM

DT Patent  
 LA English

FAN.CNT 1

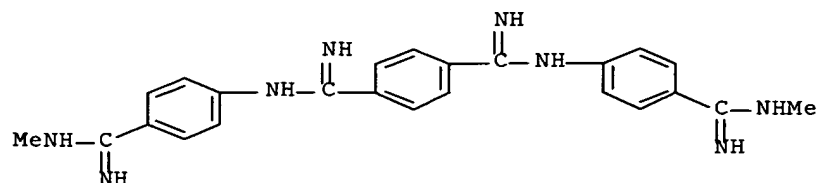
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3282953		19661101	US 1962-239076	19621120 <--
GI	For diagram(s), see printed CA Issue.				

AB Complex phthalamidine compds. are made from corresponding imidine chlorides as shown below. The products are chemotherapeutic agents specifically against trypanosomes. For example, 11.5 g. terephthalbis(N-methylimide chloride) and 23.6 g. p-(N1,N2- dimethylamidino)aniline-2HCl are heated in 150 ml. HCONMe2 and 15 ml. pyridine at 120° for 6 hrs. to give 15 g. N1,N3bis[p-N1,N2- dimethylamidino)phenyl] - N2,N4 - dimethylterephthalimidine - 4HCl, m. 325° (decomposition). Similarly, N,N3-bis(p-2-imidazolin - 2 - ylphenyl)terephthalimidine-4HCl, m. 360° (decomposition); N1,N3-bis[p - (N1 - methyl - N2 - ethylamidino)phenyl] - N2,N4 - diethylterephthalimidine- 4HCl, m. 245° (decomposition); N1,N3-bis[p-(N1- methylamidino)phenyl]terephthamidine- 4HCl, m. 240° (decomposition); N1,N3-bis[p-(N-ethylimide chloride) phenyl]terephthalimidechloro[p-(N1- ethylamidino)phenyl]terephthalimidine- 4HCl, m. 248° (decomposition); N1,N3-bis[p-(N1- methylamidino)phenyl]isophthalamidine-4HCl, m. 260° (decomposition); 2-chloro- N1,N3 - bis[p - (N1 - methylamidino)phenyl]isophthalamidine-4HCl, m. 268°; N1,N3-bis[p-(N1-ethylamidino)phenyl]isophthamidine-4HCl, m. 245°; 2-chloro- N1,N3-bis[p-(N1- methylamidino)phenyl]terephthalimidine-4HCl, m. 265° (decomposition).

IT 537-51-9P 2053-23-8P 10605-55-7P  
 10605-64-8P 13239-45-7P 13239-46-8P  
 13725-56-9P 13725-57-0P 13725-58-1P  
 13725-59-2P 13725-60-5P 13725-70-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

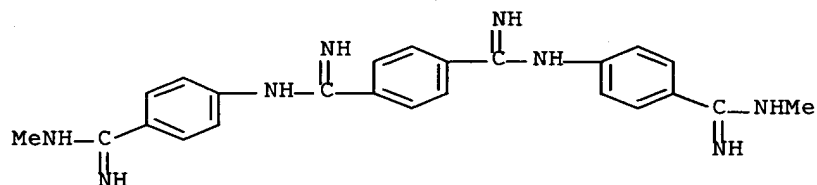
RN 537-51-9 CAPLUS

CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]  
 ]- (9CI) (CA INDEX NAME)



RN 2053-23-8 CAPLUS

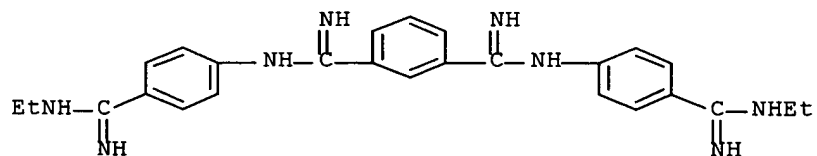
CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 10605-55-7 CAPLUS

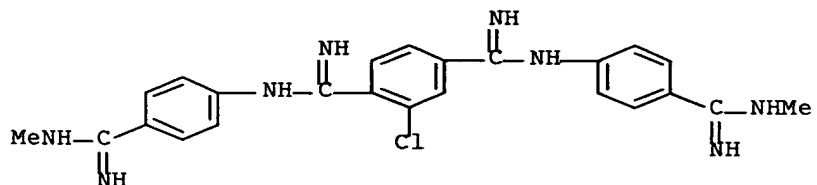
CN Isophthalamidine, N,N''-bis[p-(ethylamidino)phenyl]-, tetrahydrochloride (7CI, 8CI) (CA INDEX NAME)



●4 HCl

RN 10605-64-8 CAPLUS

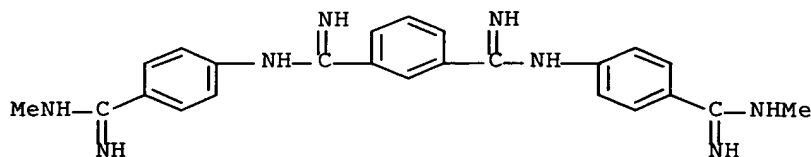
CN 1,4-Benzenedicarboximidamide, 2-chloro-N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 13239-45-7 CAPLUS

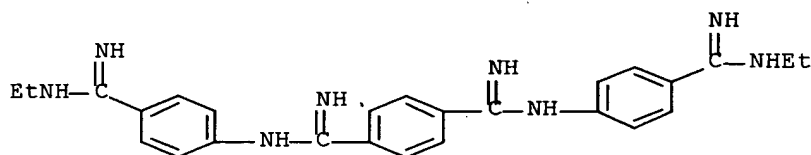
CN 1,3-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 13239-46-8 CAPLUS

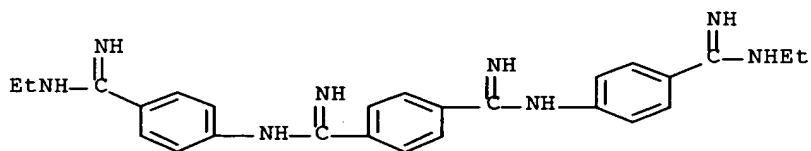
CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[(ethylamino)iminomethyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

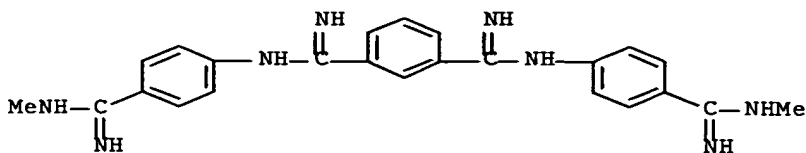
RN 13725-56-9 CAPLUS

CN Terephthalamidine, N,N''-bis[p-(ethylamidino)phenyl]- (8CI) (CA INDEX NAME)



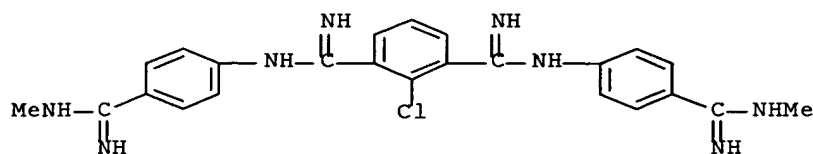
RN 13725-57-0 CAPLUS

CN Isophthalamidine, N,N''-bis[p-(methylamidino)phenyl]- (8CI) (CA INDEX NAME)



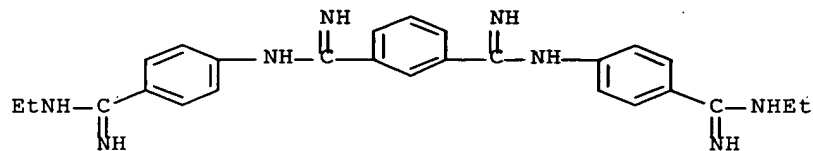
RN 13725-58-1 CAPLUS

CN Isophthalamidine, 2-chloro-N,N''-bis[p-(methanamidino)phenyl]- (8CI) (CA INDEX NAME)



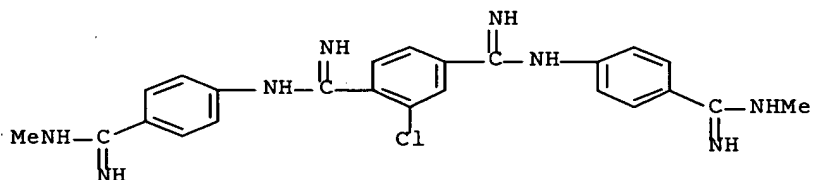
RN 13725-59-2 CAPLUS

CN Isophthalamidine, N,N''-bis[p-(ethanamidino)phenyl]- (8CI) (CA INDEX NAME)



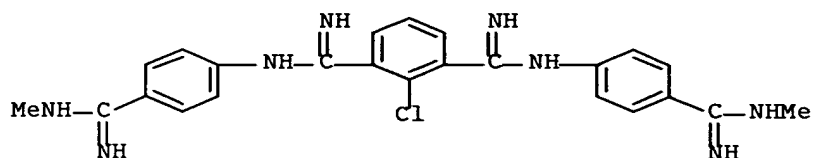
RN 13725-60-5 CAPLUS

CN Terephthalamidine, 2-chloro-N,N''-bis[p-(methanamidino)phenyl]- (8CI) (CA INDEX NAME)



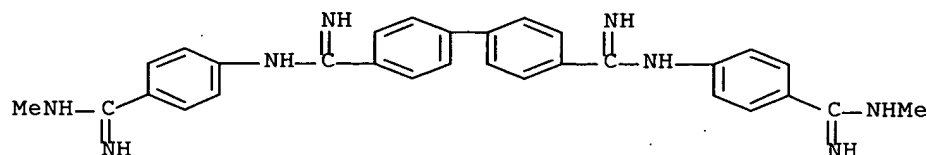
RN 13725-70-7 CAPLUS

CN Isophthalamidine, 2-chloro-N,N''-bis[p-(methanamidino)phenyl]-, tetrahydrochloride (7CI, 8CI) (CA INDEX NAME)



●4 HCl

L11 ANSWER 33 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1967:36370 CAPLUS Full-text  
 DN 66:36370  
 TI Effect of coplanar hetero-oligo bases on the growth of experimental tumors on chick chorioallantoic membrane. I  
 AU Rauen, Hermann M.; Norpoth, Klaus; Boehm, E.; Bremer, K.  
 CS Wilhelms-Univ., Muenster, Fed. Rep. Ger.  
 SO Zeitschrift fuer die Gesamte Experimentelle Medizin (1967), 142(1), 95-108  
 CODEN: ZGEMAZ; ISSN: 0372-8722  
 DT Journal  
 LA German  
 AB The hetero-oligo bases, HR-2257 (3000-6000  $\gamma$ /egg) and HR-2153 (1000-5000  $\gamma$ /egg), inhibited growth of Yoshida sarcoma and Walker carcinosarcoma in a chorioallantoic membrane tumor system. HR-2423 (1000-5000  $\gamma$ /egg) accelerated growth of Yoshida sarcoma; 500  $\gamma$ /egg had no effect. HR-2074 accelerated growth of Jensen sarcoma at 200  $\gamma$ /egg, had no effect at 500  $\gamma$ /egg, and inhibited growth at 1000  $\gamma$ /egg. 29 references.  
 IT 10122-07-3  
 RL: BIOL (Biological study)  
 (neoplasms growth response to)  
 RN 10122-07-3 CAPLUS  
 CN [1,1'-Biphenyl]-4,4'-dicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)

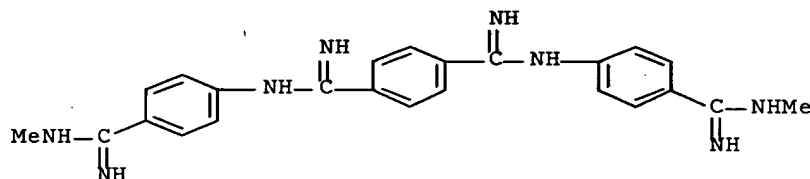


●4 HCl

L11 ANSWER 34 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1966:468119 CAPLUS Full-text  
 DN 65:68119  
 OREF 65:12723a-c  
 TI Polybasic compounds with a new mechanism of action against leukemia  
 AU Hirt, R.  
 CS Wander A.-G., Bern, Switz.  
 SO Intern. Congr. Chemotherapy, Proc., 3rd, Stuttgart, 1963 (1964), 2, 1055-8  
 DT Journal  
 LA German  
 GI For diagram(s), see printed CA Issue.  
 AB The new title compds. usually had configurations of the general type represented by I. Data are given on the inhibitory action of 26 of these new compds. (out of a total of 600 synthesized) against Mycobacterium tuberculosis tested in vitro and the L 1210 strain of mouse leukemia tested in mice. The terminal R groups of the I were definitely basic (such as amidine, imidazoline, or guanidine moieties). Many of these compds. had a marked

specific in vitro action against *M. tuberculosis*, whereas other bacteria were not affected by these compds. There was some correlation between the tuberculostatic action in vitro and the antileukemic action (prolongation of life) in mice. By conversion to derivs., the localization of these new compds. in cells could be demonstrated, fluorescing under uv light. The I were mainly localized in the nuclei of cells of warm-blooded animals (mice) and in equivalent portions of bacterial cells. Little of the I was demonstrable in the cytoplasm. Other expts. showed that I form complexes with nuclei acids, which may serve to explain their biol. action. However (in contrast to alkylating cytostatic agents) the I showed a rather low chemical reactivity. The I probably act by means of their high adsorptive power, so that at least the 1st stage of their biol. activity is of a physicochem. nature.

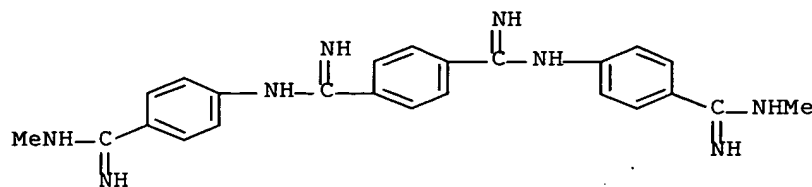
IT 537-51-9, Terephthalamidine, N,N''-bis[p-(methylamidino)phenyl]-  
(antileukemic and tuberculocidic activity of)  
RN 537-51-9 CAPLUS  
CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]- (9CI) (CA INDEX NAME)



L11 ANSWER 35 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1966:441691 CAPLUS Full-text  
DN 65:41691  
OREF 65:7822h,7823a-b  
TI In vitro and in vivo studies of the antileukemic action of  
N,N''-bis[p-(N'-methylamidino)phenyl] terephthalamidine tetrahydrochloride  
(NSC 57155) on P815 leukemic cells  
AU Winkler, Alojz; Kreis, W.; Gregg, V. C.; Purple, J. R.; Burchenal, J. H.  
CS Sloan-Kettering Inst. for Cancer Res., New York, NY  
SO Cancer Research (1966), 26(7), 1502-7  
CODEN: CNREA8; ISSN: 0008-5472  
DT Journal  
LA English  
AB The effect of contact with various concns. of NSC 57155 for various incubation periods was observed on P815Y cells in tissue culture and on sensitive P815 and resistant P815/NSC 57155 cells; the latter 2 cell types were injected into mice following incubation with the drug. NSC 57155 produced a 55% growth inhibition of P815Y cells following with 300, 100, or 1  $\gamma$ /ml. for 15-30 min., 1-2 hrs., and 72 hrs., resp. Incubation of P815 or P815/NSC 57155 cells for 4 and 24 hrs. with 100  $\gamma$  NSC 57155/ml. prolonged the survival time of mice inoculated with the cells from 9.7 to 17.3 days and from 10.5 to 18.6 days, resp.; shorter incubations were not effective. Most of the radioactivity from  $^{14}\text{C}$ -labeled NSC 57155 was incorporated into the cytoplasm of P815 and P815/NSC 57155 cells following a 2-hr. incubation with 100  $\gamma$  NSC 57155/ml.; little radioactivity was found in the cell nucleus and >50% of the activity was extracted with nonpolar solvents. Incorporation of the labeled compound occurred at a slower rate in P815/NSC 57155 cells than in P815 cells. The cytostatic effect of NSC 57155 (100  $\gamma$ /ml.) against P815 and P815/NSC 57155 cells was time-dependent; the latter cells were sensitive to these high

concns., but a longer incubation period was required than with the sensitive cells. 28 references.

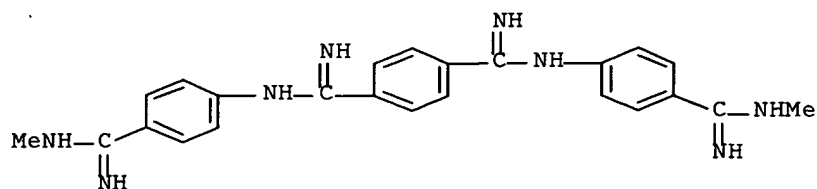
- IT 2053-23-8, Terephthalamidine, N,N''-bis[p-(methyamidino)phenyl]-, tetrahydrochloride  
(as leukemia inhibitor)  
RN 2053-23-8 CAPLUS  
CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

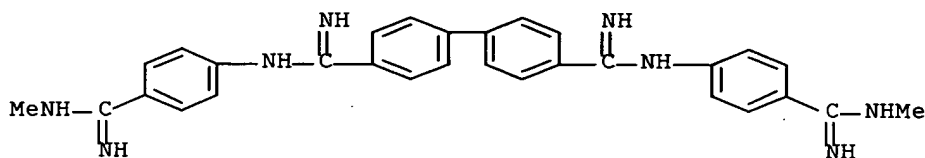
- L11 ANSWER 36 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1966:422943 CAPLUS Full-text  
DN 65:22943  
OREF 65:4300d-e  
TI Coplanar hetero-oligobases (phthalanilides) and their mechanism of cytostatic action  
AU Rauen, H. M.; Haar, H.; Unterberg, W.  
CS Wilhelms-Univ., Muenster, Germany  
SO Arzneimittel-Forschung (1966), 16(4), 533-41  
CODEN: ARZNAD; ISSN: 0004-4172  
DT Journal  
LA German  
AB The bacteriostatic effects of 37 phthalanilides against *Lactobacillus casei* were caused by complex formation with DNA and RNA. The direct reaction between macromol. and low-mol. ligands was demonstrable by differential spectra in the uv range and by an increase in the m.p. of DNA. A parallelism existed between the bacteriostatic activity, the development of the differential spectra, and the increase in the m.p. of DNA.  
IT 2053-23-8P, Terephthalamidine, N,N''-bis[p-(methyamidino)phenyl]-, tetrahydrochloride 10122-07-3P, 4,4'-Biphenyldicarboximidamide, N,N''-bis[p-(methyamidino)phenyl]-, tetrahydrochloride 10605-55-7P, Isophthalamidine, N,N''-bis[p-(ethyamidino)phenyl]-, tetrahydrochloride 10605-64-8P, Terephthalamidine, 2-chloro-N,N''-bis[p-(methyamidino)phenyl]-, tetrahydrochloride 13239-45-7P, Isophthalamidine, N,N''-bis[p-(methyamidino)phenyl]-, tetrahydrochloride 13239-46-8P, Terephthalamidine, N,N''-bis[p-(ethyamidino)phenyl]-, tetrahydrochloride 13239-47-9P, Terephthalamidine, N,N''-bis[p-(propylamidino)phenyl]-, tetrahydrochloride 13474-78-7P, Isophthalamidine, 4-chloro-N,N''-bis[p-(methyamidino)phenyl]-, tetrahydrochloride  
RL: PREP (Preparation)  
(bacteriostatic action of, by nucleic acid complex formation)  
RN 2053-23-8 CAPLUS  
CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)





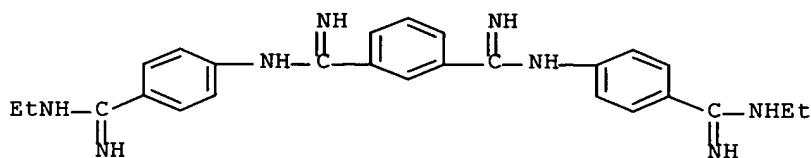
●4 HCl

RN 10122-07-3 CAPLUS  
 CN [1,1'-Biphenyl]-4,4'-dicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



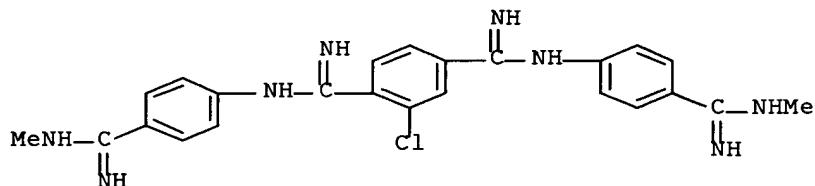
●4 HCl

RN 10605-55-7 CAPLUS  
 CN Isophthalamidine, N,N''-bis[p-(ethylamidino)phenyl]-, tetrahydrochloride (7CI, 8CI) (CA INDEX NAME)



●4 HCl

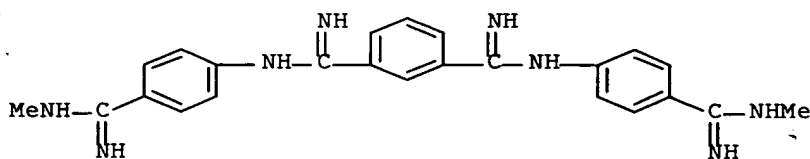
RN 10605-64-8 CAPLUS  
 CN 1,4-Benzenedicarboximidamide, 2-chloro-N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 13239-45-7 CAPLUS

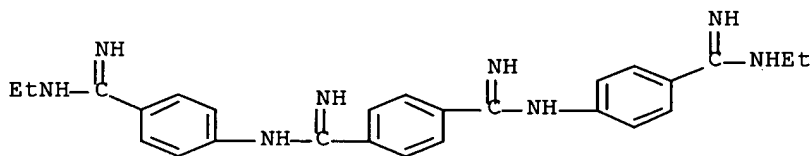
CN 1,3-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 13239-46-8 CAPLUS

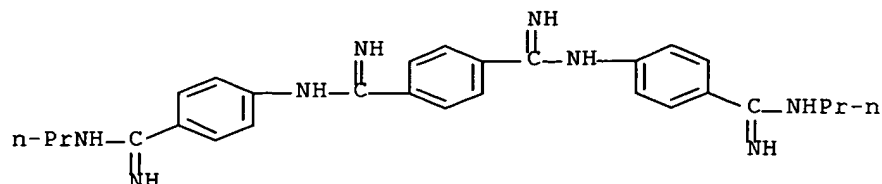
CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[(ethylamino)iminomethyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 13239-47-9 CAPLUS

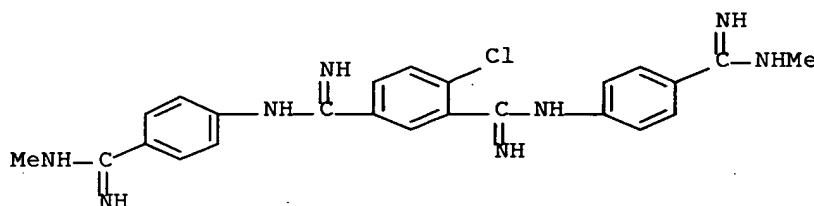
CN Terephthalamidine, N,N''-bis[p-(propylamidino)phenyl]-, tetrahydrochloride (7CI, 8CI) (CA INDEX NAME)



●4 HCl

RN 13474-78-7 CAPLUS

CN Isophthalamidine, 4-chloro-N,N''-bis[p-(methyamidino)phenyl]-, tetrahydrochloride (7CI, 8CI) (CA INDEX NAME)



●4 HCl

L11 ANSWER 37 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1966:93110 CAPLUS Full-text

DN 64:93110

OREF 64:17473g-h

TI Synthesis of p-guanidinobenzamidines

AU Bauer, Victor J.; Safir, S. R.

CS Lederle Labs., Div. of Am. Cyanamid Co., Pearl River, NY

SO Journal of Medicinal Chemistry (1966), 9(2), 244-6

CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

OS CASREACT 64:93110

GI For diagram(s), see printed CA Issue.

AB The synthesis of some salts of p-guanidinobenzamidines is described, a system which can be construed as a biguanide in which a p-phenylene group has been inserted between the guanyl and guanidino moieties. The specific examples synthesized are I, and II and III, isomeric with phenethylbiguanide. These compds. are synthesized by two routes starting from either p-aminobenzonitrile or p-aminobenzamidine-HCl. Blood glucose levels were not depressed significantly below controls when determined at 2 hrs. after dosing for chicks and 3 hrs. after dosing for rats.

IT 5637-02-5P, Guanidine, (p-amidinophenyl)-, dihydrochloride

5993-32-8P, Guanidine, [p-(ethylamidino)phenyl]-, diperchlorate

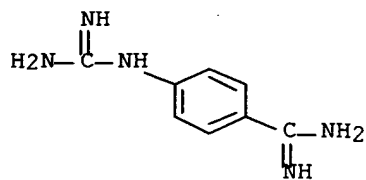
6190-98-3P, Guanidine, 1-(p-amidinophenyl)-3-ethyl-, dinitrate

RL: PREP (Preparation)

(preparation of)

RN 5637-02-5 CAPLUS

CN Guanidine, (p-amidinophenyl)-, dihydrochloride (7CI, 8CI) (CA INDEX NAME)

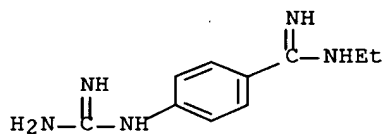


●2 HCl

RN 5993-32-8 CAPLUS  
 CN Benzenecarboximidamide, 4-[(aminoiminomethyl)amino]-N-ethyl-,  
 diperchlorate (9CI) (CA INDEX NAME)

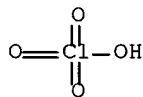
CM 1

CRN 46437-74-5  
 CMF C10 H15 N5



CM 2

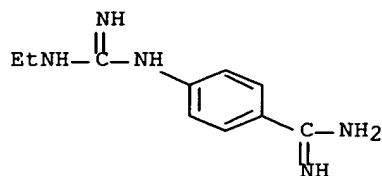
CRN 7601-90-3  
 CMF Cl H O4



RN 6190-98-3 CAPLUS  
 CN Guanidine, 1-(p-amidinophenyl)-3-ethyl-, dinitrate (7CI, 8CI) (CA INDEX  
 NAME)

CM 1

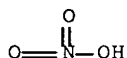
CRN 46456-76-2  
 CMF C10 H15 N5



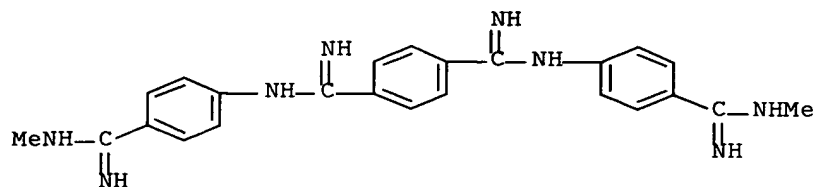
CM 2

CRN 7697-37-2

CMF H N O3



L11 ANSWER 38 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1966:13947 CAPLUS Full-text  
 DN 64:13947  
 OREF 64:2590e-g  
 TI The use of mouse leukemias in the screening of drugs  
 AU Burchenal, J. H.; Gregg, V. C.; Purple, J. R.; Kreis, W.  
 CS Mem. Hosp. Cancer & Allied Disease, New York, NY  
 SO Intern. Congr. Chemotherapy, Proc., 3rd, Stuttgart (1964),  
 1963(2), 932-9  
 DT Journal  
 LA English  
 AB New data are tabulated and interpreted for correlations of the activity of various agents against the L 1210, P 815, B 82, and P 1081 mouse leukemias and pharmacotherapeutic activity in man. The agents tested included methotrexate, 6-mercaptopurine, thioguanine, cytoxan, vincristine, cortisone, fluorouracil, fluorodeoxyuridine, hydroxyurea, mitomycin, DON (6-diazo-5-ovo-L-norleucine), miracil D, actinobolin, isometamidium, and the phthalanilide derivative NSC 38280. All compds. active in human tumors and cancers were active against some strains of mouse leukemia. Old and new data are given on cross-resistances between various drugs. For compds. of the phthalanilide group (I), there was a lack of cross-resistance in several cases (7 such compds. tested). With some drugs (such as the I), prolongation of the life of leukemic mice was obtained at doses which were ultimately fatal. Old and new data indicated that certain compds. rendered mouse leukemias non-transplantable. Data are tabulated for 10 I compds. (control nos. and structural formulas indicated in some cases) on relations between tissue culture tests with mouse leukemia P 815 and the survival of mice treated with the same compds. Better correlations between in vitro and in vivo results were obtained for the I than for other compds. of different chemical structure. The results indicated the utility of mouse leukemia screening tests prior to pharmacotherapeutic trials of various compds. in man. 20 references.  
 IT 2053-23-8, Terephthalamidine, N,N''-bis[p-(methyamidino)phenyl]-, tetrahydrochloride  
 (as leukemia inhibitor, structure and)  
 RN 2053-23-8 CAPLUS  
 CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

L11 ANSWER 39 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1965:502364 CAPLUS Full-text

DN 63:102364

OREF 63:18888h,18889a

TI Toxicology of antileukemic agents with special reference to phthalanilide derivatives

AU Kensler, C. J.; Palm, P. E.; Day, H. M.; Battista, S. P.; Rogers, W. I.; Yesair, D. W.; Wodinsky, I.

CS Arthur D. Little, Inc., Cambridge, MA

SO Cancer Research (1965), 25(9), 1622-37

CODEN: CNREA8; ISSN: 0008-5472

DT Journal

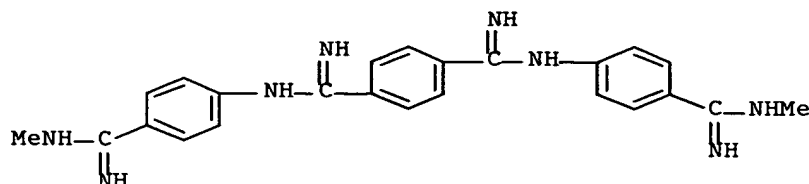
LA English

AB The toxicology of the antileukemic agents amethopterin, azaserine, 6-mercaptopurine, cyclophosphamide, mechlorethamine, cytoxan, 1-β-D-arabinofuranosylcytosine-HCl, 1-methyl-1-nitrosourea, 1-(2-chloroethyl)-1-nitrosourea, 1,3-bis(2-chloroethyl)-1-nitrosourea, and phthalanilide derivs., such as 4',4'-di-2-imidazolin-2-ylterephthalamilide- 2HCl, 4',4''-bis( 2-imidazolin-2-ylamino)terephthalamilide-2HBr, 1,1'-m - phenylenebis [3 - [p - (2 - imidazolin - 2 - yl)phenyl] urea] - 2HCl, and N,N''-bis[p-( N'-methylamidino)phenyl]terephthalamidine-4HCl were studied for their toxicologic and therapeutic effects in normal mice and in mice bearing leukemia. Results indicate that the toxicologic problems may not be associated with structurally related compds. having antileukemic activity.

IT 2053-23-8, Terephthalamidine, N,N''-bis[p-(methylamidino)phenyl]-, tetrahydrochloride  
(toxicity of)

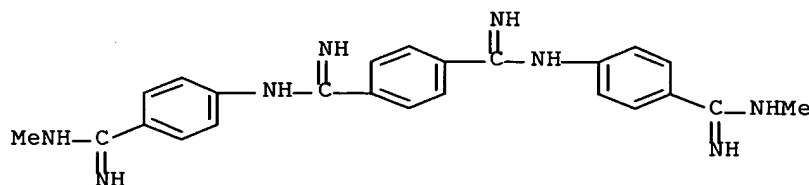
RN 2053-23-8 CAPLUS

CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

L11 ANSWER 40 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1965:419707 CAPLUS Full-text  
 DN 63:19707  
 OREF 63:3520g-h,3521a  
 TI Clinical investigation of the physiologic disposition of a phthalanilide (NSC-38280) and a phthalamidine derivative (NSC-57155) in 7 patients  
 AU Kreis, Willi; Ellison, R. R.; Lyman, M. S.; Burchenal, J. H.  
 CS Sloan-Kettering Inst. for Cancer Res., New York, NY  
 SO Cancer Research (1965), 25, 402-7  
 CODEN: CNREA8; ISSN: 0008-5472  
 DT Journal  
 LA English  
 AB Data are presented on blood levels, absorption, and excretion of 14C-labeled 4',4''-bis(2-imadazolin-2-yl)-2-chloroterephthalanilide-HCl (NSC-38280) after intravenous and oral administration, and on quant. and qual. excretion of 14C-labeled N,N''-bis[p-(N'- methylamidino)phenyl]terephthalamidine tetrahydrochloride (NSC-57155) after intravenous injection. Whereas only about 17% of the activity of labeled NSC-38280 was excreted in urine within 6 days, the corresponding amount of labeled NSC-57155 was approx. 49%. The excretion of radioactivity in feces with 6 days after administration of labeled NSC-57155 was only about 1%. Excretion continues for many weeks after that period, and the compound is partially stored in kidneys and liver. Qual. studies indicated that NSC-57155 is excreted in urine without change in the mol., but in the form of a salt, conjugation product, or most probably, a complex.  
 IT 2053-23-8, Terephthalamidine, N,N''-bis[p-(methylamidino)phenyl]-, tetrahydrochloride  
 (metabolism of)  
 RN 2053-23-8 CAPLUS  
 CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)

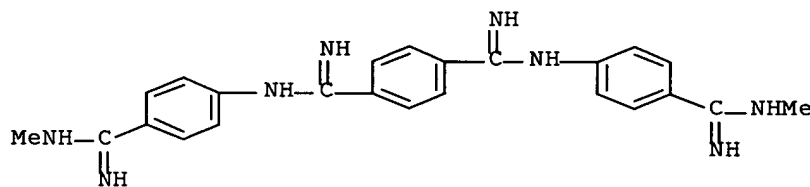


●4 HCl

L11 ANSWER 41 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1964:461516 CAPLUS Full-text  
 DN 61:61516  
 OREF 61:10630b-d  
 TI Terephthalamidines  
 PA Dr. A. Wander A.-G.  
 SO 20 pp.  
 DT Patent  
 LA Unavailable  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI FR M2403 19640410 FR <--  
 CH 405281 CH  
 CH 405282 CH  
 CH 405283 CH  
 GB 1016653 GB  
 PRAI CH 19611124  
 OS MARPAT 61:61516  
 AB Compds. of the general formula 1,4-[RN:C(X)]<sub>2</sub>C<sub>6</sub>H<sub>4</sub>, where R is H or an alkyl group and X is a halogen or alkoxy group, are treated with compds. of the general formula p-RNHC(:NR')C<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, where R and R' are the same or different and can be H, alkyl groups, or alkenyl groups, to give the title compds., which can be used against leukemia and as tuberculostats. Thus, a mixture of 11.5 g. 1,4-[MeN:CCl]<sub>2</sub>C<sub>6</sub>H<sub>4</sub>, 23.6 g. p-MeNHC(:NMe)C<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>.2HCl, 150 ml. HCONMe<sub>2</sub>, and 15 ml. pyridine is heated 6 hrs. at 120° to give 15.0 g. N',N'''-bis[p-(N',N''-dimethylamidino)phenyl] - N'',N'''' - dimethyltetraphthalamidine-4HCl, m. 325° (decomposition). Similarly prepared are (m.p. given): N',N'''-bis[p-(p-imidazolylphenyl)terephthalamidine-4HCl, 360° (decomposition); N',N'''-bis[p-(N'-methyl-N''-ethylamidino)phenyl]-N'',N''''-diethylterephthalamidine-4HCl, 245° (decomposition); N',N'''-bis[p-(N'-methylamidino)phenyl]terephthalamidine-4HCl, 240° (decomposition); N',N'''-bis[p-(N'-ethylamidino)phenyl] terephthalamidine-4HCl, 248° (decomposition); N',N'''-bis[p-(N'-methylamidino)phenyl]isophthalamidine-4HCl, 260° (decomposition); 2-chloro-N',N'''-bis[p-(N'-methylamidino)phenyl]isophthalamidine-4HCl, 268°; N',N'''-bis [p-(N'-ethylamidino)phenyl]isophthalamidine-4HCl, 245°; 2-chloro - N',N'''-bis[p-(N'-methylamidino)phenyl] terephthalamidine-4HCl, 265° (decomposition).  
 IT 6550-09-0, Terephthalamidine, N,N'''-bis[p-(methylamidino)phenyl]-, dihydrochloride  
 (as leukemia inhibitor)  
 RN 6550-09-0 CAPLUS  
 CN Terephthalamidine, N',N'''-bis[p-(methylamidino)phenyl]-, dihydrochloride (8CI) (CA INDEX NAME)

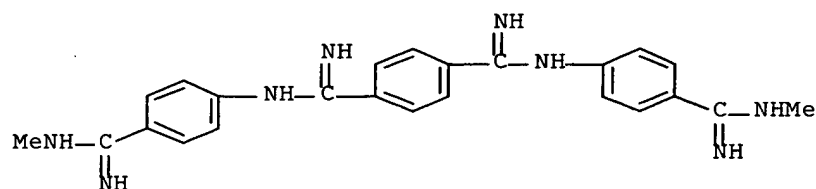


●2 HCl

IT 2053-23-8P, Terephthalamidine, N,N'''-bis[p-(methylamidino)phenyl]-, tetrahydrochloride 10605-55-7P, Isophthalamidine, N,N'''-bis[p-(ethylamidino)phenyl]-, tetrahydrochloride 10605-64-8P, Terephthalamidine, 2-chloro-N,N'''-bis[p-(methylamidino)phenyl]-, tetrahydrochloride 13239-45-7P, Isophthalamidine, N,N'''-bis[p-(methylamidino)phenyl]-, tetrahydrochloride 13239-46-8P, Terephthalamidine, N,N'''-bis[p-(ethylamidino)phenyl]-, tetrahydrochloride 13474-78-7P, Isophthalamidine, 4-chloro-N,N'''-bis[p-(methylamidino)phenyl]-, tetrahydrochloride  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 2053-23-8 CAPLUS  
 CN 1,4-Benzenedicarboximidamide, N,N'''-bis[4-[imino(methylamino)methyl]phenyl]



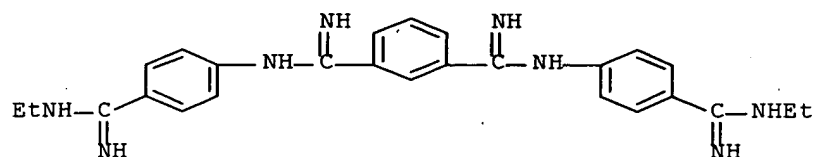
]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 10605-55-7 CAPLUS

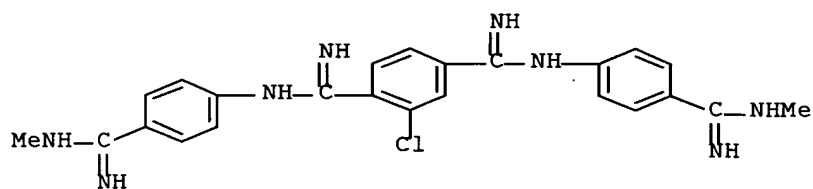
CN Isophthalamidine, N,N''-bis[p-(ethylamidino)phenyl]-, tetrahydrochloride (7CI, 8CI) (CA INDEX NAME)



●4 HCl

RN 10605-64-8 CAPLUS

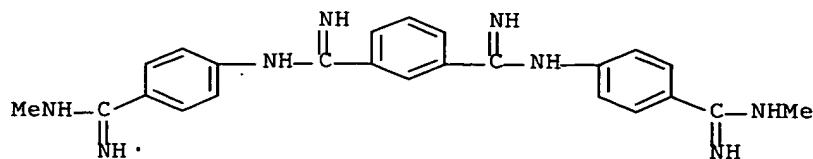
CN 1,4-Benzenedicarboximidamide, 2-chloro-N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 13239-45-7 CAPLUS

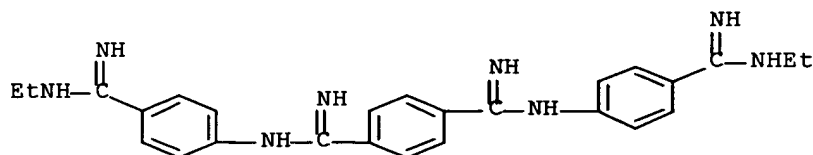
CN 1,3-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 13239-46-8 CAPLUS

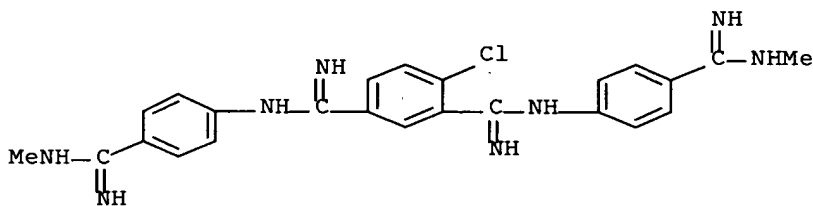
CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[(ethylamino)iminomethyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 13474-78-7 CAPLUS

CN Isophthalamidine, 4-chloro-N,N''-bis[p-(methylamidino)phenyl]-, tetrahydrochloride (7CI, 8CI) (CA INDEX NAME)



●4 HCl

L11 ANSWER 42 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1964:32693 CAPLUS Full-text

DN 60:32693

OREF 60:5870g-h,5871a

TI Quantitative and qualitative determination of terephthalanilides and related compounds in blood, urine, and spinal fluid

AU Kreis, Willi; Warkentin, Donald L.

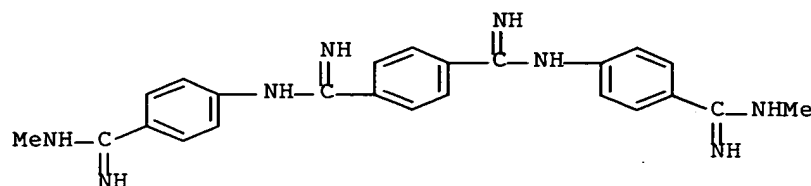
CS Sloan-Kettering Inst. Cancer Res., New York, NY

SO Cancer Chemotherapy Rept. (1963), 32, 7-13

DT Journal

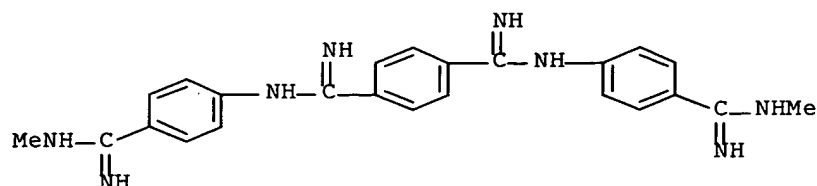
LA Unavailable

- AB A quant. detn. of NSC-38280 (4',4''-di-2-imidazolin-2-yl-2-chloroterephthalanilide), NSC-53306 [4',4''-bis(2-imidazolin-2-ylamino)terephthalanilide-di-HCl]], and NSC-57155 [N.-N''-bis[p- (N'-methylamidino)phenyl]terephthalamidine-tetra-HCl] has been made in blood, urine, and spinal fluid. As little as 0.5  $\lambda$ /ml. can be detected. The specificity of the method is limited to strongly basic compds. with primary aromatic amino groups. In addition to terephthalanilides, other basic compds. with primary aromatic amino groups may also be extracted and interfere with the color reaction. Several systems for qual. determination of terephthalanilides with thin-layer chromatography are indicated.
- IT 2053-23-8, Terephthalamidine, N,N''-bis[p-(methylamidino)phenyl]-, tetrahydrochloride  
(determination in blood, cerebrospinal fluid and urine)
- RN 2053-23-8 CAPLUS
- CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



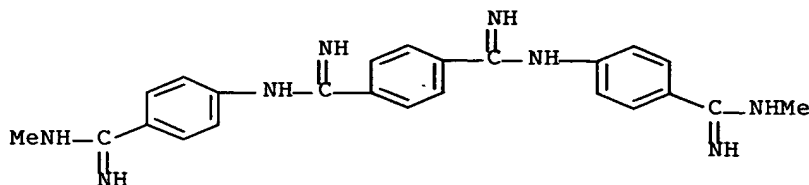
●4 HCl

- L11 ANSWER 43 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 1964:12230 CAPLUS Full-text
- DN 60:12230
- OREF 60:2197g
- TI Chemotherapeutic activity of phthalanilide derivatives. An approach to anticodic therapy?
- AU Kensler, Charles J.
- CS Arthur D. Little, Inc., Cambridge, MA
- SO Cancer Research (1963), 23, 1353-63  
CODEN: CNREA8; ISSN: 0008-5472
- DT Journal
- LA Unavailable
- AB Unavailable
- IT 2053-23-8, Terephthalamidine, N,N''-bis[p-(methylamidino)phenyl]-, tetrahydrochloride  
(in cancer therapy, toxicity and)
- RN 2053-23-8 CAPLUS
- CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

L11 ANSWER 44 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1963:485148 CAPLUS Full-text  
 DN 59:85148  
 OREF 59:15823h,15824a-b  
 TI Production of thrombi and emboli in the hamster cheek pouch by phthalanilides and related compds  
 AU York, Irene M.; Rogers, William I.; Kensler, C. J.  
 CS Arthur D. Little, Inc., Cambridge, MA  
 SO Journal of Pharmacology and Experimental Therapeutics (1963), 141(1), 36-49  
 CODEN: JPETAB; ISSN: 0022-3565  
 DT Journal  
 LA Unavailable  
 AB The compds. studied were dissolved in half- or full-strength buffer at pH 6.0-7.6 and applied topically to the everted cheek pouch of anesthetized adult golden hamsters or were administered intravenously to the cheek pouch. Some animals received 15 or 150 mg. heparin/kg. intravenously and whole-blood clotting times were studied after topical or intravenous administration of the test compound. After topical application, emboli and thrombi were produced in venules and at venular junctions by concns. which varied with the compound used. Increased adhesion of leukocytes to venule walls, decreased rate of venous flow, vasoconstriction, and hemostasis were also observed. Seventeen other drugs were topically applied, and only amphotericin B produced thromboembolism. Similar results occurred when the drugs were given intravenously. Heparin injections increased whole-blood clotting time from 3-4 min. to 6-18 hrs.; it did not prevent the effects of the test compds. which were applied topically or administered intravenously. 15 references.  
 IT 2053-23-8P, Terephthalamidine, N,N''-bis[p-(methyamidino)phenyl]-, tetrahydrochloride  
 RL: PREP (Preparation)  
 (in formation of embolism and thrombus)  
 RN 2053-23-8 CAPLUS  
 CN 1,4-Benzenedicarboximidamide, N,N''-bis[4-[imino(methylamino)methyl]phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

L11 ANSWER 45 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1963:484951 CAPLUS Full-text

DN 59:84951

OREF 59:15789d-g

TI Lack of cross-resistance to the amidino and ureido derivatives in mouse leukemias made resistant to 4',4''-bis(2-imidazolin-2-yl)-2-chloroterephthalanilide dihydrochloride (NSC 3280)

AU Burchenal, Joseph H.; Lyman, M. S.

CS Sloan-Kettering Inst. for Cancer Res., New York, NY

SO Proceedings of the Canadian Cancer Research Conference (1962), (5), 439-48

CODEN: PCCRA4; ISSN: 0068-8436

DT Journal

LA Unavailable

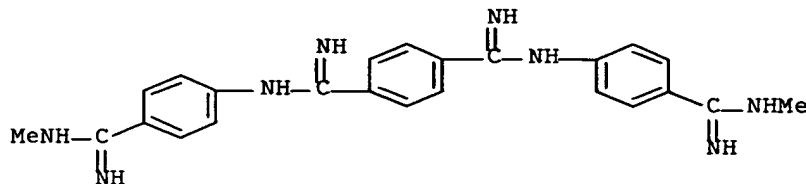
AB 4®, 4''-Bis(2-imidazolin-2-yl)-2-chloroterephthalanilide-di-HCl (I), 4', 4''-bis(2-imidazolin-2-yl)isophthalanilide-di-HCl (II), 4', 4''-bis(2-imidazolin-2-yl)terephthalanilide-di-HCl (III), 1,1'-m-phenylenebis[3-[p-(2-imidazolin-2-yl)phenyl] urea]-di-HCl (IV), 1,1'-p-phenylenebis[3-[m-(2-imidazolin-2-yl)phenyl]urea]-di-HCl (V), and 4', 4''-bis(p-monomethylamindinophenyl)terephthalamidine (VI) were tested against sensitive and resistant leukemias and had a higher degree of activity against a broader spectrum of mouse leukemias than any other class of compds. Initial cross-resistance studies showed that III and its nitro derivative and II were all completely inactive against L 1210, P 388, and P 815 leukemias. IV, V, and VI were active against the sublines of both P 388 and P 815 leukemias made resistant to I. IV and V differ from the original terephthalanilides and isophthalanilides in having ureido groups on either side of the central ring instead of amide linkages, in addition to the meta configuration of some of the ring systems. In VI, the amide linkages on either side of the central ring are replaced by amidino groups and the imidazoline groups at either end of the mol. have been replaced by methyl amidines. Since IV and V have intact imidazoline groups at either end and either the central or the aniline rings in the meta configuration, the only change which IV, V, and VI have in common is the loss of the amide linkage on either side of the central ring and this suggested the development or activation of an amidase in the resistant leukemias which cleaved the molecule. Preliminary studies with labeled I with leukemic cells from sensitive and resistant lines of P 815 have so far shown no difference in metabolic products on thin-layer chromatography.

IT 6550-09-0, Terephthalamidine, N,N''-bis[p-(methyamidino)phenyl]-, dihydrochloride

(leukemia inhibition by, cross-resistance in relation to)

RN 6550-09-0 CAPLUS

CN Terephthalamidine, N',N'''-bis[p-(methyamidino)phenyl]-, dihydrochloride (8CI) (CA INDEX NAME)



●2 HCl

L11 ANSWER 46 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1961:27935 CAPLUS Full-text

DN 55:27935

OREF 55:5521e-i, 5522a-i, 5523a-i

TI Search for chemotherapeutic amidines. XVI. Amidinoanilino-1,3,5-triazines and related compounds

AU Ashley, J. N.; Berg, S. S.; MacDonald, R. D.

CS May & Baker, Dagenham, UK

SO Journal of the Chemical Society (1960) 4525-32

CODEN: JCSOA9; ISSN: 0368-1769

DT Journal

LA Unavailable

GI For diagram(s), see printed CA Issue.

AB cf. CA 52, 14559e. A series of amidinoanilino-1,3,5-triazines was prepd. Only 2,4-bis(p-amidinoanilino)-6-amino-1,3,5-triazine (I) had significant activity against Trypanosoma congolense. Attempts to improve this activity by various modifications to the structure gave less active products. 2-Amino-4,6-dichloro-1,3,5-triazine (II) was first prepared (0.5 molar scale) with Et<sub>2</sub>O as the solvent for the cyanuric chloride; NH<sub>3</sub> was admitted (cooling bath at -20 to -25°) so that the internal temperature did not rise above -5°. II (66-79%) crystallized from C<sub>6</sub>H<sub>6</sub> in white prisms, m. 234-5° (decomposition). The following method was preferred for preparation of larger amts. of II. Cyanuric chloride (553.5 g.) in 6 l. dry CHCl<sub>3</sub> treated 48 min. with NH<sub>3</sub> at a rate of 3 l./min. (below -12°) gave 638 g. II containing NH<sub>4</sub>Cl; purification gave 367 g. pure II. 4,6-Dichloro-2-methylamino-1,3,5-triazine (82%), m. 160-1°, and 84% 4,6-dichloro-2-ethylamino-1,3,5-triazine, m. 106-7°, were prepared by a known method. 4,6-Dichloro-2-diethylamino-1,3,5-triazine (96%) m. 79-80°; 4,6-dichloro-2-methoxy-1,3,5-triazine (61%) m. 90-1°. II (165 g.) in 220 ml. anisole added in one portion to 472 g. p-aminobenzonitrile in 2400 ml. anisole at 100-110°, the bath temperature raised to 180-5°, refluxed 1.5 hrs., the mixture cooled, filtered, and the solid stirred 1 hr. at 20-5° with 10 l. 2N NaOH gave 325 g. 2-amino-4,6-bis(p-cyanoanilino)-1,3,5-triazine (III), yellow prisms, m. 339-41° (PhNO<sub>2</sub>, C<sub>5</sub>H<sub>5</sub>N, or HCONMe<sub>2</sub>). The following 1,3,5-triazines were prepared by the same method as for III: 70% 4,6-bis(p-cyanoanilino)-2-methylamino-, yellow, m. 281-2° (PhNO<sub>2</sub>); 67% 4,6-bis(p-cyanoanilino)-2-ethylamino-, prisms, m. 249-51° (PhNO<sub>2</sub>); 60% 4,6-bis(p-cyanoanilino)-2-diethylamino-, prisms, m. 205-7° (anisole); 60% 2-amino-4,6-bis(p-nitroanilino)-, green prisms, m. above 300° (PhNO<sub>2</sub>); 64% 2-diethylamino-4,6-bis(p-nitroanilino)-, yellow needles, m. 316-17° (PhNO<sub>2</sub>); 87% 4,6-bis(p-cyanoanilino)-2-methoxy-, white needles, m. above 300° (AcOH); and 58% 2-amino-4,6-bis(m-cyanoanilino)-1,3,5-triazine as the monoacetate, m. 240-2° (AcOH). p-Aminobenzonitrile (70.8 g.) in 250 ml. CHCl<sub>3</sub> added dropwise during 1 hr. to 55.35 g. cyanuric chloride in 500 ml. CHCl<sub>3</sub> at 15-20°, and the solid washed with 2N HCl gave 65 g. 2,4-dichloro-6-(p-cyanoanilino)-1,3,5-triazine (IV). white rhombs, m. above 300° (Me<sub>2</sub>CO, EtCOMe, or dioxane). Condensation carried out in Me<sub>2</sub>CO or EtCOMe at 30-5°, 45-50°, or 55-60° gave IV; no 2-chloro-4,6-bis(p-cyanoanilino)-1,3,5-triazine was obtained. II (16.5 g.) added to 23.6 g. p-hydroxybenzonitrile in 8 g. NaOH and 125 ml. H<sub>2</sub>O at 8-10°, the temperature allowed to rise during 2 hrs. to 25°, the mixture heated rapidly to 90-5°, kept 4 hrs. at this temperature, and filtered gave 23.5 g. 2-amino-4,6-bis(p-cyanophenoxy)-1,3,5-triazine, white plates, m. 288-9° (EtOCH<sub>2</sub>CH<sub>2</sub>OH). The following were prepared similarly: 72% 4,6-bis(p-cyanophenoxy)-2-diethylamino-1,3,5-triazine, white needles, m. 144-5° (alc.), and 57.5% 2-amino-4,6-bis(p-dimethylaminoanilino)-1,3,5-triazine, m. 283-6° (PhNO<sub>2</sub>) (the di-HCl salt was deliquescent). The bis-(methosulfate), m. 274-6° (decomposition), was prepared from the base and Me<sub>2</sub>SO<sub>4</sub> at 100° in PhNO<sub>2</sub>. 4,6-Bis(p-cyanoanilino)-2-methoxy-1,3,5-triazine (3.4 g.) and 1 g. PhCH<sub>2</sub>NH<sub>2</sub> in 100

ml. PhNO<sub>2</sub> heated 4-5 hrs. at 190° gave 1.3 g. 4,6-bis(p-cyanoanilino)-2-hydroxy-1,3,5-triazine as a crude product (insol. in alcs., hydrocarbons, AcOH, dioxane, anisole, PhCl, PhNO<sub>2</sub>, and cresylic acid). 2-Amino-4,6-bis(p-nitroanilino)-1,3,5-triazine (18.3 g.) suspended in 183 ml. refluxing AcOH treated in one portion with 183 g. SnCl<sub>2</sub> in 183 ml. concentrated HCl, stirred 2 hrs. at 100°, cooled, the chloride filtered off and washed, and the red base filtered and treated with 2N HCl gave 9 g. 2-amino-4,6-bis(p-aminoanilino)-1,3,5-triazine-2HCl, white needles, m. above 300° (2N HCl). 4,6-Bis(p-aminoanilino)-2-diethylamino-1,3,5-triazine, obtained in 61% yield as pink needles, m. 196-7° (C<sub>6</sub>H<sub>6</sub>); di-HCl salt m. above 280°. p-Aminobenzonitrile (23.6 g.) in 150 ml. Me<sub>2</sub>CO containing 0.05 g. KI added to 13.3 g. 2,4-dichloro-6-(p-cyanoanilino)-1,3,5-triazine in 600 ml. refluxing Me<sub>2</sub>CO, the mixture refluxed 16 hrs., and the suspension filtered gave 14.1 g. 2,4,6-tris(p-cyanoanilino)-1,3,5-triazine, yellow, m. above 300° (PhNO<sub>2</sub>). 4,6-Diaminoquinaldine (8.7 g.) in 200 ml. AcOH stirred 3 hrs. at 40-50° with 13.3 g. 2,4-dichloro-6-(p-cyanoanilino)-1,3,5-triazine (V) in 200 ml. AcOH and the solid ground up with 2N NaOH gave 8.4 g. 4-(4-aminoquinaldin-6-ylamino)-2-chloro-6-(p-cyanoanilino)-1,3,5-triazine, yellow needles, m. above 300° (aqueous alc.). 2-Diethylaminoethylamine (11.6 g.) in 100 ml. Me<sub>2</sub>CO added dropwise to a suspension of 13.3 g. V in 200 ml. Me<sub>2</sub>CO, kept 3 hrs., evaporated, and the residual gum dissolved in 2N HCl gave (after basification) 10 g. 2-chloro-6-(p-cyanoanilino)-4-(2-diethylaminoethylamino)-1,3,5-triazine (VI), m. 143-5° (alc.). VI (16.1 g.) and 9.5 g. p-aminobenzonitrile in 120 ml. anisole refluxed 4 hrs. and the mixture filtered and ground with 2N NaOH gave 8.1 g. 4-(4-aminoquinaldin-6-ylamino)-2,6-bis(p-cyanoanilino)-1,3,5-triazine, brown prisms, m. above 300°. 2,6-Bis(p-cyanoanilino)-4-(2-diethylaminoethylamino)-1,3,5-triazine was prepared similarly (40% yield) from the corresponding 2-chloro compound as white prisms, m. 155-9° (alc.). V (26.6 g.) and 80 g. PhOH heated at 182-9°, NH<sub>3</sub> bubbled through for 6 hrs., the mass ground with 500 ml. H<sub>2</sub>O, and the product crystallized gave 18.3 g. 2,4-diamino-6-(p-cyanoanilino)-1,3,5-triazine, m. 282-3° (PhNO<sub>2</sub>). Na dicyanamide (44.5 g.) in 250 ml. H<sub>2</sub>O refluxed 6 hrs. with 129.8 g. p-aminobenzonitrile in 110 ml. concentrated HCl and 880 ml. H<sub>2</sub>O and the precipitate collected, washed (2N NaOH), and crystallized gave 52.4 g. N<sub>1</sub>,N<sub>5</sub>-bis(p-cyanophenyl)biguanide (VII), m. 203-4° (slight decomposition). VII (23 g.) in 150 ml. 90% HCO<sub>2</sub>H refluxed 3 hrs., cooled to 30°, and the product isolated gave 10.5 g. 2,4-bis(p-cyanoanilino)-1,3,5-triazine, prismatic needles, m. above 300° (PhNO<sub>2</sub>). VII (20 g.), 60 ml. Me<sub>2</sub>CO, and 0.9 ml. piperidine refluxed 2.5 hrs. gave 18.5 g. 2,4-bis(p-cyanoanilino)-1,6-dihydro-6,6-dimethyl-1,3,5-triazine, m. 269-71° (decomposition) (MeOH). 2,4-Bis(p-cyanoanilino)-6-ethyl-1,6-dihydro-6-methyl-1,3,5-triazine, similarly prepared in 85% yield from EtMeCO as white needles, m. above 360°. 2-Diethylamino-4,6-bis(p-guanidinoanilino)-1,3,5-triazine, similarly prepared in 84% yield as white prisms, m. 174-5° (decomposition). III (500 g.) suspended in 1.5 l. dry alc. was ground 4 days in a ball-mill, the suspension saturated 12 hrs. at -15 to -20° with dry HCl, and the solid collected, washed, and dried; the yields of diimidoate (VIII) from 2 runs were 1400 g. and 1250 g. VIII stirred with dry alc. and added at 20-5° to liquid NH<sub>3</sub> in alc., the mixture stirred 6 hrs. at 50-5° and cooled, the solid filtered off and added (at 90°) to 20 l. 0.5N HCl, the mixture refluxed, filtered, treated with C, refiltered, cooled, and treated with HCl gave 804 g. and 606 g. crude 4,6-bis(p-amidinoanilino)-2-amino-1,3,5-triazine-3HCl.2H<sub>2</sub>O (IX) from two runs. IX (50 g.) in hot MeOH cooled to 25°, treated with C, filtered, and treated with 300 ml. concentrated HCl gave 20.5 g. IX, m. above 360°. The amorphous diamidine base (80% yield), m. 195-8° (decomposition), was obtained by grinding the salt, VIII, with MeOH-2N NaOH; it did not crystallize; the diphosphate m. above 290°. The acid-insol. material obtained at the amination stage was essentially the corresponding 4,4'-dicarboxamide. The corresponding di-HCl salt, decomposing 255° (10.6 g.) ground with 2N NaOH and ice with 0.2 ml. Lissapol N gave 7 g. of the diimidoate. Treatment with aqueous alc. and NH<sub>4</sub>Cl yielded 12% 2-amino-4,6-

bis[p-(ethoxyiminomethyl)anilino]-1,3,5-triazine (together with the dicarboxamide). When ammonium isethionate was used in this conversion, only the dicarboxamide was obtained. A mixture of III (3.5 g.) and 3.5 g. ammonium benzenesulfonate heated 2.5 hrs. at 300° in a stream of NH<sub>3</sub> and cooled, the melt powdered and dissolved in 15 ml. hot H<sub>2</sub>O, and the mixture filtered and cooled gave 2.3 g. melamine benzenesulfonate, m. above 300°. Treatment of a hot aqueous solution with NaOH gave melamine. Concentration of the aqueous liquors gave 0.2 g. p-aminobenzamide, m. 180-3°. Extraction of the initial aqueous mother liquor gave 0.1 g. p-aminobenzonitrile, m. 86-8°. The following p-[H<sub>2</sub>N(HN:)C]C<sub>6</sub>H<sub>4</sub>XC:N.C{XC<sub>6</sub>H<sub>4</sub>[C(:NH)NH<sub>2</sub>]p}:N. CR:N were prepared from the resp. nitriles by the Pinner method (X, R, alc. and solvent for imidoate preparation, time in days for imidoate preparation, amidine salt, crystallization solvent, % yield, and m.p. of product given): NH, NEt<sub>2</sub>, alc., 10, 2HCl, MeOH, 42, above 300°; O, NH<sub>2</sub>, alc.-CHCl<sub>3</sub>, 5, 2HCl, MeOH-Me<sub>2</sub>CO, 33, 160° (decomposition); O, NEt<sub>2</sub>, alc.-CHCl<sub>3</sub>, 5, 2HCl, MeOH-Me<sub>2</sub>CO, 45, 255-7° (decomposition); NH, NHMe, alc., 14, 2HCl, aqueous NaCl, 53, 319-20° (decomposition); NH, NH<sub>2</sub>Et, alc., 21, 2HCl, aqueous NaCl, 55, 275-6° (decomposition); NH, NH(CH<sub>2</sub>)<sub>2</sub>NEt<sub>2</sub>, alc.-CHCl<sub>3</sub>, 6, 3HCl, MeOH-Me<sub>2</sub>CO, 42, 245-7° (decomposition); NH, 4-aminoquinaldin-6-ylamino, alc.-PhNO<sub>2</sub>, 21, 3HCl, MeOH, 26.5, above 300°; NH, OMe, alc., 21, 2HCl, MeOH-Me<sub>2</sub>CO, 41, above 300°; NH, p-amidinoanilino, HO(CH<sub>2</sub>)<sub>2</sub>OEt, 30, 4MeSO<sub>3</sub>H, MeOH, 23.3, 212-14° (decomposition); NH, H, alc., 21, 2MeSO<sub>3</sub>H, MeOH, 60, 306-8° (decomposition). N1,N5-Bis(p-amidinophenyl)biguanide was prepared by the general method (using 2-ethoxyethanol as the alc.); the imidoate preparation was kept 1 month; the diamidine-3HCl (13.2%) separated as white crystals, m. 355-6° (decomposition). 6-(p-Amidinoanilino)-2,4-diamino-1,3,5-triazine was prepared in 61% yield as the HCl salt after 4 weeks, m. 306-8° (decomposition). The imidoate preparation was kept 3 days only and a 62% yield of 2,4-bis(p-amidinoanilino)-1,6-dihydro-6,6-dimethyl-1,3,5-triazine-3HCl separated as white prisms, m. above 300° (MeOH-Me<sub>2</sub>CO). 2,4-Bis(p-amidinoanilino)-6-ethyl-1,6-dihydro-6-methyl-1,3,5-triazine-3HCl was similarly prepared (70% yield), prisms, m. above 300° (Me<sub>2</sub>CO-MeOH). The following N-alkylamidines were obtained from the diimidoate-3HCl and the requisite amine in alc.: 56% 2-amino-4,6-bis[p-(N-methylamidino)]- (from MeOH-Et<sub>2</sub>O) and 2-amino-4,6-bis[p-(N,N-dimethylamidino)anilino]-1,3,5-triazine-2HCl (from MeOH-Et<sub>2</sub>O). 3-Dimethylaminopropylamine (20.4 g.) added to 16.5 g. II in 50 ml. H<sub>2</sub>O, the mixture heated slowly to the b.p., a solution of 8 g. NaOH in 40 ml. H<sub>2</sub>O added during 1 hr., and the mixture refluxed 2 hrs. and extracted with CHCl<sub>3</sub> gave a liquid, b.p. 200°, which solidified to a glass (25% yield). This base (5.8 g.) in 50 ml. EtOH treated with 5.7 g. tartaric acid in 25 ml. alc. gave the bis(H tartrate) of 2-amino-4,6-bis(3-dimethylaminopropylamino)-1,3,5-triazine, m. 78-80°. The base (7.2 g.) in 50 ml. Me<sub>2</sub>CO treated with 3.5 ml. MeI gave the MeI salt. This product dissolved in H<sub>2</sub>O and heated 5 min. with 1 mole diammonium 4,4'-diaminostilbene-2,2'-disulfonate gave the bisquaternary 4,4'-diaminostilbene-2,2'-disulfonate, pinkish powder, m. 283-5° (decomposition). 4,6-Bis(m-amidinoanilino)-2-amino-1,3,5-triazine was prepared by the standard method (using alc. as the solvent). The preparation kept 3 weeks afforded the di-HCl salt, m. above 300° (MeOH).

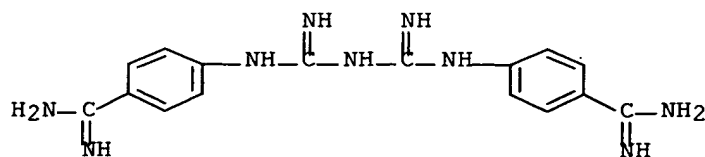
IT 101424-83-3P, Biguanide, 1,5-bis(p-amidinophenyl)-, trihydrochloride

RL: PREP (Preparation)  
(preparation of)

RN 101424-83-3 CAPLUS

CN Biguanide, 1,5-bis(p-amidinophenyl)-, tri-hydrochloride (6CI) (CA INDEX NAME)





●3 HCl

L11 ANSWER 47 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1954:60262 CAPLUS Full-text

DN 48:60262

OREF 48:10632g-i,10633a-f

TI Derivatives of 4-aminophenylamidines

AU Peyron, Louis; Peyron, Jacqueline

SO Bulletin de la Societe Chimique de France (1953) 846-52

CODEN: BSCFAS; ISSN: 0037-8968

DT Journal

LA Unavailable

OS CASREACT 48:60262

AB A no. of 4-amino derivs. of  $\text{PhC}(:\text{NH})\text{NH}_2$ , desired for anthelmintic and toxicity studies, were prepared from the nitriles 4- $\text{RCONHC}_6\text{H}_4\text{CN}$  (I) or derivs. of 4- $\text{NCC}_6\text{H}_4\text{NHCO}_2\text{H}$  (II). The Schotten-Baumann method was used to prepare (Ia) ( $\text{R} = \text{C}_{11}\text{H}_{23}$ ) (75% yield) and (Ib) ( $\text{R} = \text{Ph}$ ) from 4- $\text{H}_2\text{NC}_6\text{H}_4\text{CN}$  (III). Refluxing 11.8 g. III, 6 g. urea, and 100 cc. N HCl 3 hrs., filtering the hot mixture, cooling the filtrate, and collecting and drying the precipitate gave 80% (Ic) ( $\text{R} = \text{H}_2\text{N}$ ) m.  $244^\circ$ ; similarly,  $\text{PhNCO}$  gave (Id) ( $\text{R} = \text{PhNH}$ ). Adding 20 g.  $\text{COCl}_2$  to 11.8 g. III in 100 cc. of 50% aqueous dioxane (keeping the solution alkaline by addition of small amts. of aqueous  $\text{Na}_2\text{CO}_3$ ), stirring 1 hr., collecting and drying the precipitate, extracting it with dilute HCl, washing with  $\text{H}_2\text{O}$ , and recrystg. from dilute alc. gave 77% (Ie) ( $\text{R} = 4\text{-NCC}_6\text{H}_4\text{NH}$ ), m.  $305^\circ$ . Refluxing 4.83 g. Ic, 1.13 g. of 95%  $\text{N}_2\text{H}_4$ , and 10 cc. of  $\text{CH}_2(\text{OH})_2$  6 hrs. with constant removal of the  $\text{NH}_3$  in a current of N, pouring the mixture into 200 cc.  $\text{H}_2\text{O}$ , cooling, boiling the resulting precipitate 15 min. with 10 cc.  $\text{H}_2\text{O}$  and 10 cc.  $\text{Me}_2\text{CO}$ , filtering the solution, and cooling, give 62% 4- $\text{NCC}_6\text{H}_4\text{NHCONHN}:\text{CMe}_2$ , m.  $212^\circ$ . Acid hydrolysis gave the semicarbazide (If) ( $\text{R} = \text{NHNH}_2$ ), m.  $189^\circ$ . Similarly is obtained 65% (Ig) ( $\text{R} = \text{PhNHNH}$ ), m.  $210^\circ$ . Heating a suspension of 13.5 g.  $\text{PhNHCOME}$  and 21 g.  $\text{P}_2\text{O}_5$  in 50 cc. anhydrous  $\text{C}_6\text{H}_6$  2 hrs. at  $40^\circ$ , gradually adding 11 g. III in  $\text{C}_6\text{H}_6$ , warming 4 hrs. on the steam bath, evaporating the solvent in vacuo, treating the residue with 5%  $\text{NaOH}$ , and collecting the precipitate, washing with  $\text{H}_2\text{O}$ , and recrystg. from  $\text{MeOH}$  gives 4- $\text{NCC}_6\text{H}_4\text{NHC}(:\text{NPh})\text{Me}$  (IV), m.  $154^\circ$ ; the same procedure gives 82% 4- $\text{NCC}_6\text{H}_4\text{NHC}(:\text{NPh})\text{C}_{11}\text{H}_{23}$  (V), m.  $100^\circ$ . Boiling a mixture of 11.8 g. III, 8 cc. concentrated HCl, 12 g.  $\text{PhNHCN}$ , and 30 cc. tert-BuOH 15 hrs., making it alkaline with  $\text{NH}_3$ , collecting the precipitate and recrystg. from  $\text{MeOH}$  and then from iso-PrOH, gives 43% 4- $\text{NCC}_6\text{H}_4\text{NHC}(:\text{NH})\text{NPh}$  (VI), m.  $165^\circ$ . Id was also prepared by way of II as follows: Adding 3.3 g. freshly-precipitated  $\text{NaN}_3$  to 8.3 g. 4- $\text{NCC}_6\text{H}_4\text{COCl}$  in 25 cc.  $\text{C}_6\text{H}_6$ , refluxing 1 hr., adding 5.5 g.  $\text{PhNH}_2$ , refluxing 15 min., adding  $\text{H}_2\text{O}$ , collecting the precipitate and recrystg. it from alc. gives 45% Id, m.  $198^\circ$ . 4- $\text{NCC}_6\text{H}_4\text{NHCO}_2\text{Et}$  did not react with  $\text{N}_2\text{H}_4$  to give If, nor with  $\text{PhOH}$  to give the Ph ester. The desired amidines, 4- $\text{RCONHC}_6\text{H}_4\text{C}(:\text{NH})\text{NH}_2$  (VII) were prepared by treating the I under scrupulously anhydrous conditions with gaseous HCl in EtOH or MeOH, letting the mixture stand 4 days at  $0^\circ$ , passing in dry  $\text{NH}_3$ , again letting stand at room temperature several days, collecting the precipitate and recrystg. it from 5% HCl in the presence of C black. The following VII were prepared as the HCl

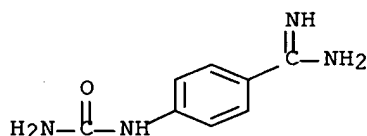
salts (R, % yield, m.p., moles of H<sub>2</sub>O of crystallization): Cl<sub>11</sub>H<sub>23</sub>, 28, 235°, 1; Ph, 45, 275° (decomposition), 0.5; NH<sub>2</sub>, 38, above 320°, 0.5; PhNH, 40, 310-20° (decomposition), 1; 4-NH<sub>2</sub>C(:NH)C<sub>6</sub>H<sub>4</sub>NH, 34, 325-7° (decomposition), 1; H<sub>2</sub>NNH, -, -, 0.5 (dipicrate, m. 235°); PhNHNH, -, -, 0 [dipicrate, m. 215° (decomposition)]. The 4-amidino analogs of IV, V, and VI could not be prepared by this method. The VII may also be rapidly and easily prepared by fusion of the I with an NH<sub>4</sub> salt; however, it was not possible to obtain HCl salts by this method. Heating 2.6 g. (p-NCC<sub>6</sub>H<sub>4</sub>NH)<sub>2</sub>CO and 7.6 g. KNCS (sic) 3 hrs. to 180-90°, cooling the mixture, extracting the solid with 250 cc. boiling H<sub>2</sub>O, filtering the mixture, pouring the filtrate into 50 cc. of an alc. solution of picric acid, and recrystg. the resulting precipitate from dilute EtOH gives 60% [p-H<sub>2</sub>NC(:NH)C<sub>6</sub>H<sub>4</sub>NH]<sub>2</sub>CO (VIIa) as the dipicrate, m. 191°; this could not be converted to the di-HCl salt without cleaving the ureido function. Similarly, PhSO<sub>3</sub>NH<sub>4</sub> gave VIIa as the bis(benzenesulfonate) (yield 50%). m. 174°. This could not be converted to the di-HCl salt on an Amberlite IR4B column because of cleavage of the ureido function. Boiling 3.1 g. VIIa.2HO<sub>3</sub>SPh with 3 g. BzOK and 20 cc. H<sub>2</sub>O several min., cooling the mixture, collecting the precipitate and crystallizing it from MeOH in the presence of C gave 92% VIIa.2HOBz, m. 241° (sublimation). The di-HCl salts of the VII were active in anthelmintic tests; the dipicrates were toxic, the bis(benzenesulfonates) were active but toxic, and the di-benzoates were neither active nor toxic.

IT 290830-47-6P, Urea, (p-amidinophenyl)-, hydrochloride

RL: PREP (Preparation)  
(preparation of)

RN 290830-47-6 CAPLUS

CN Benzenecarboximidamide, 4-[(aminocarbonyl)amino]-, monohydrochloride (9CI)  
(CA INDEX NAME)



● HCl

L11 ANSWER 48 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1946:9982 CAPLUS Full-text

DN 40:9982

OREF 40:1807h-i,1808a-i,1809a-d

TI Chemotherapeutic agents of the sulfone type. II. Sulfones related to benzamidine and benzylamine

AU Fuller, A. T.; Tonkin, I. M.; Walker, James

CS Natl. Inst. for Med. Research, London

SO Journal of the Chemical Society (1945) 633-40

CODEN: JCSOA9; ISSN: 0368-1769

DT Journal

LA Unavailable

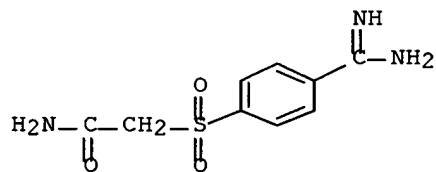
OS CASREACT 40:9982

AB Marked antibacterial activity was obsd. in p-MeSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>C(NH<sub>2</sub>):NH and further examination showed this property to be shared by the lower p-alkylsulfonylbenzamidines and -benzylamines. When the functional groups occupied the m-positions, activity was greatly reduced and the structural

requirements for high activity are that the compds. should conform to the type p- RSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CR'R''NH<sub>2</sub>, where R may be a small alkyl group (or NH<sub>2</sub> group) and R' and R'' may be an NH group or 2 H atoms, or 1 H and 1 Me group, such that basic powers are not impaired. Complete data are given for the antibacterial activity in vitro and the structural relations are discussed. p-MeSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> (200 g.) was warmed with 245 cc. concentrated HCl and 530 cc. H<sub>2</sub>O until solution resulted, the mixture cooled in ice, treated with 81 g. NaNO<sub>2</sub> in 200 cc. H<sub>2</sub>O, and the solution poured into 280 g. NaCN and 270 g. hydrated NiCl<sub>3</sub> in 1800 cc. H<sub>2</sub>O heated in boiling H<sub>2</sub>O; there resulted 140-50 g. of p-methylsulfonylbenzonitrile (I), m. 141°. I (50 g.) in 50 cc. absolute EtOH and 300 cc. CHCl<sub>3</sub>, saturated at 0° with dry HCl, the mixture allowed to stand at 0° for 4-7 days, the solvent and HCl removed in vacuo at room temperature, and the residue treated at 37° with 10% EtOH-NH<sub>3</sub> for 4-6 days, gives 78% of p-methylsulfonylbenzamidinium-HCl, m. 294°; benzoate, m. 240-1°; the solubility of the HCl salt in H<sub>2</sub>O at room temperature is about 10% and the pH of a 1% solution is 6; the solubility of the benzoate in H<sub>2</sub>O is 1.3% at room temperature and 10.6% in boiling H<sub>2</sub>O. p-NCC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>Na (II) (preparation in 87% yield given) (13.6 g.) and 15 cc. EtI in 30 cc. 60% EtOH, refluxed for 16 h., give 13.3 g. of p-ethylsulfonylbenzonitrile, m. 94-5°; 11 g. yields 13.5 g. of p-ethylsulfonylbenzamidinium-HCl, m. 246-7°. II (6.3) and 8 cc. CH<sub>2</sub>:CHCH<sub>2</sub>Br in 70% EtOH, refluxed 4 h., give 6.9 g. of p-allylsulfonylbenzonitrile, m. 92-3°; catalytic reduction of 11.95 g. in AcOEt with 2% Pd-SrCO<sub>3</sub> for 0.5 h. gives 10.2 g. of p-propylsulfonylbenzonitrile, m. 84-5°; 9.94 of the nitrile yields 11.5 g. of p-propylsulfonylbenzamidinium-HCl, m. 215-16°. II (9.7 g.) and 10 cc. BuBr in 40 cc. PrOH and 10 cc. H<sub>2</sub>O, refluxed 14 h., give 8.3 g. of p-butylsulfonylbenzonitrile, m. 75-6°; 8.25 g. yields 9 g. of p-butylsulfonylbenzamidinium benzoate, pale yellow plates, m. 224-5° (decomposition), or fine needles, m. 227° (decomposition). II (6.3 g.) and 5.5 cc. PhCH<sub>2</sub>Cl in 32 cc. 90% EtOH, refluxed 9 h., give 7.3 g. of p-benzylsulfonylbenzonitrile, m. 194-5°; 12.2 g. yields 9.8 g. of p-benzylsulfonylbenzamidinium-HCl, with 1 mol. H<sub>2</sub>O, m. 215-16°. II (12.6 g.) and 6.5 cc. ClCH<sub>2</sub>Ac in 70 cc. EtOH and 10 cc. H<sub>2</sub>O, refluxed 8.5 h., give 12 g. of p-cyanophenylsulfonylacetone, m. 112-13°; this yields p-acetonylsulfonylbenzamidinium-HCl, m. 193-4°. II (10 g.) and 5 g. ClCH<sub>2</sub>CONH<sub>2</sub> in 45 cc. EtOH, refluxed 10 h., give 8.2 g. of p-cyanophenylsulfonylacetamide, m. 204°; 7.5 g. gives 9.6 g. of p-carbamylmethylsulfonylbenzamidinium-HCl, with 0.5 mol. H<sub>2</sub>O, m. 235-6° (decomposition). II (12.6 g.) and 6 g. ClCH<sub>2</sub>CON in 27 cc. 90% EtOH, refluxed 12 h., give 11.2 g. of p-cyanophenylsulfonylacetone, m. 142-3°; this yields 18.9 g. of p-guanylmethylsulfonylbenzamidinium-2HCl, m. 283° (decomposition). p-PhSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CONH<sub>2</sub> (22.9 g.), 23 cc. POCl<sub>3</sub>, and 100 cc. CHCl<sub>3</sub>, refluxed 3 h., give p-phenylsulfonylbenzonitrile, m. 126°; 14 g. yields p-phenylsulfonylbenzamidinium-HCl, with 0.5 mol. H<sub>2</sub>O, m. 201-2°. p-MeSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CN (III) (94 g.), added during 0.5 h. to 200 cc. 75% H<sub>2</sub>SO<sub>4</sub> at 150° and heated at 190° for 3 h., gives 99.1 g. of p-methylsulfonylbenzoic acid (IV), m. 267-8°; 30 g. of II, treated with SOCl<sub>2</sub> and the acid chloride shaken with 50 cc. 30% aqueous MeNH<sub>2</sub> for 1 h. and allowed to stand 36 h. at room temperature, gives 29.2 g. of N-methyl-p-methylsulfonylbenzamide (V), m. 192°. V (10 g.) and 10 g. PCl<sub>5</sub> in 100 cc. PhMe, warmed 3 h. on the water bath and the residue treated with 10% EtOH-NH<sub>3</sub> at 37° for several days, give 5 g. of N-methyl-p-methylsulfonylbenzamidinium-HCl, m. 246°; a purer product results with a mixture of 22% weight/volume EtOH-MeNH<sub>2</sub> and absolute EtOH for 8 days at 37°; if the reaction is carried out with 2.75 mol. proportions of Me<sub>2</sub>NH for 5 days, 12 g. of V gives 12.9 g. of N,N-dimethyl-p-methylsulfonylbenzamidinium-HCl, m. 274-5°. V (12 g.) and Et<sub>2</sub>N(CH<sub>2</sub>)<sub>3</sub>NH<sub>2</sub> give 12.9 g. of N-(3-diethylaminopropyl)-p-methylsulfonylbenzamidinium-2HCl, m. 254°. MeSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>C(:NOH) yields a HCl salt, m. 227° (decomposition). p-MeSC<sub>6</sub>H<sub>4</sub>NO<sub>2</sub> (28.6 g.) on reduction gives 28.4 g. of p-methylmercaptoaniline-HCl, m. 260-1°. p-MeSC<sub>6</sub>H<sub>4</sub>CN (13.9 g.) yields 17.3 g. of p-methylmercaptobenzamidinium-HCl, m. 218-19°; benzoate, m. 251-2°. m-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>Me (100 g.) in 600 cc. EtOH, reduced with 2% PdSrCO<sub>3</sub> at 100° for 1 h. and the crude amine submitted to the Sandmeyer reaction, give 49.4 g. of m-

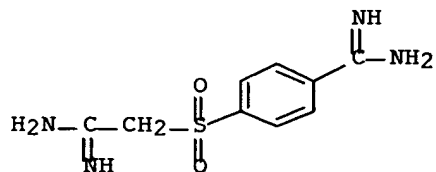
methylsulfonylbenzonitrile, b<sub>4</sub> 210°, m. 103-4°; 12.75 g. give 10.3 g. of m-methylsulfonylbenzamidinium-HCl, m. 216°. PhSO<sub>2</sub>Et (109 g.) on nitration and reduction gives 106.2 g. of m-ethylsulfonylaniline-HCl, m. 239-40°; 100 g. yields 50.2 g. of m-ethylsulfonylbenzonitrile, m. 51-2°; 15 g. of the nitrile give 10.1 g. of m-ethylsulfonylbenzamidinium-HCl, m. 196°. I (100 g.) in 10% EtOH-NH<sub>3</sub>, reduced with 10 g. Raney Ni at 15° and 95 atmospheric for 1.25 h., gives 106 g. of p-methylsulfonylbenzylamine-HCl, m. 279-80°, and 4 g. of bis(p-methylsulfonylbenzyl)amine-HCl, m. 310° (decomposition). p-EtSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CN (16 g.) on reduction as above gives 14.1 g. of p-ethylsulfonylbenzylamine-HCl, m. 222°. m-MeSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CN (18.1 g.) gives 17.5 g. of m-methylsulfonylbenzylamine-HCl, m. 250-1°; the m-Et homolog m. 155-6°. III (36 g.) in 320 cc. CHCl<sub>3</sub> with Stephen's reagent from 72 g. SnCl<sub>2</sub> gives 24.9 g. of p-methylsulfonylbenzaldehyde (VI), m. 157°; 24.8 g. of VI and 17 g. of CH<sub>2</sub>(CO<sub>2</sub>H)<sub>2</sub> in 30 cc. C<sub>5</sub>H<sub>5</sub>N containing 8 drops of piperidine give 25.8 g. of p-methylsulfonylcinnamic acid, m. 288°; catalytic reduction of 35.6 g. gives 33.1 g. of β-(p-methylsulfonylphenyl)propionic acid (VII), m. 171-2°. VII (6.9 g.), converted into the acid chloride and the Me<sub>2</sub>CO solution treated with NaN<sub>3</sub>, gives 2-(p-methylsulfonylphenyl)ethylamine-HCl, m. 204-5°. VI (40 g.), transformed into p-MeSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>COCl and treated in C<sub>6</sub>H<sub>6</sub> with the Mg derivative from CH<sub>2</sub>(CO<sub>2</sub>Et)<sub>2</sub>, gives 88% of p-methylsulfonylacetophenone (VIII), m. 128-9°; oxime, m. 155-6°. VIII (29.7 g.) and HCONH<sub>2</sub>, heated 6 h. at 180°, give 60% of 1-(p-methylsulfonylphenyl)ethylamine-HCl, m. 274°.

IT 855879-57-1P, Acetamide, α-(p-guanylphenylsulfonyl)-, -HCl  
 857581-40-9P, Benamidine, p-(guanylmethylsulfonyl)-, dihydrochloride  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 855879-57-1 CAPLUS  
 CN Acetamide, α-(p-guanylphenylsulfonyl)-, -HCl (4CI) (CA INDEX NAME)



● HCl

RN 857581-40-9 CAPLUS  
 CN Benamidine, p-(guanylmethylsulfonyl)-, dihydrochloride (4CI) (CA INDEX NAME)



●2 HCl